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July/August 2008

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Florida Wildlife

**Art contest
winners**

**New dawn
for an
old river**

Butterflies

Florida's other winged wonders

It all begins
with that
first fish

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2008 Florida Wildlife Photo Contest

Florida Wildlife Magazine is pleased to announce its 2008 photo contest. Winning entries will be published in the January/February 2009 issue of *Florida Wildlife* and posted on the magazine's Web site.



JUSTIN HELLER

Categories

- **Bird watching.** Birds living in or visiting Florida.
- **Living wild.** Any wild animals, other than birds, pictured in a Florida habitat. This includes mammals, reptiles, amphibians, insects and fish.
- **Up close.** A close-up or macro view of nature. Plants, natural materials or animals may be pictured.
- **Natural scenes.** Where Florida's animals live.
- **Recreation.** People outdoors and enjoying Florida's recreational opportunities.

Prizes

Grand prize: \$300 awarded for best overall photograph.

First place winners in each category will be awarded \$125.

Second prize winners will receive \$100.

Third place winners will receive \$75.

Awards of Merit may be given. Winners will receive \$50.

Rules:

- Wildlife pictured must be live – pictures of mounted wildlife are not eligible. Images of domestic animals (dogs, cats, cattle, etc.) are not eligible.
- Images must be taken within the state of Florida.
- All entries must be received by 5 p.m. Friday, Aug. 1, 2008. Entries received after this date will be automatically disqualified and returned to the entrant.
- Employees of the FWC and their immediate families are not eligible.
- Photographs previously submitted to or published by *Florida Wildlife Magazine* or any other FWC publications are not eligible.
- One-time publication rights to each photograph must be available.
- All entries will be judged by *Florida Wildlife Magazine* staff and other employees of the FWC. The decisions of the judges are final.
- The judges reserve the right to decide whether entries in a category merit three awards and to decide under which category a picture will be judged. Three prizes may not be awarded in all categories.
- Winning entries posted on the Web site may have watermarks added.

Entry Procedures:

- No more than 20 entries will be accepted from a single entrant.
- Entries must be accompanied with a self-addressed mailer with sufficient postage for return of materials via U.S. mail.
- Entries must contain only photo contest material. No other correspondence should be included.
- A single, legible, letter size (8 1/2" x 11") log must accompany each entry. A pdf log may be downloaded from the magazine's Web site (www.FloridaWildlifeMagazine.com) but is not required. The log sheet must contain the following information:

Name of photographer

Mailing address

Telephone number, with area code

E-mail address

Category

Subject of photo

Where photo was taken

When photo was taken

Camera model

Mail entries to:

Florida Wildlife Photo Contest
620 South Meridian Street,
Tallahassee, FL 32399-1600

- Entries may be submitted as:
 - Prints.** Approximately 8"x10" and not framed or matted. Image must be as large as paper size will allow. 5"x7" or smaller will not judged.
 - Digital images.** Digital images may be submitted on a CD. A letter-sized color print or laser copy of each digital image should be included for tracking purposes. Images on CD will be judged, not the laser image.
- The photographer's name and address must appear and be legible on the back of each print or on the CD. The photographer's name or other information may not appear on the front of any print.
- Manipulation of images should be kept at a minimum (such as saturation, contrast, dodging, eliminating dust spots, etc.). Images in which content has been eliminated, added, rearranged, etc. will not be accepted.
- Entries will be returned via U.S. mail beginning in January 2009.
- Entrant's information (address, phone, e-mail) will not be shared or used by the FWC for any reason other than communicating with entrant regarding this contest.



FEATURES

7

Sometimes it's a fine line between help and harm

By Betsy S. Franz

Before inviting wild creatures
to visit, make sure it is safe
for them to do so

21

Drifting for pompano

By Capt. Fred Everson

Drifting a flat
while casting artificials
to great-tasting fish is a terrific
way to beat summer doldrums

24

Florida's other winged wonders

By Jaret Daniels and Anne Glick

Floridians are rapidly discovering
the excitement of butterfly
watching

30

High on kites

By Sandy Beck

Mississippi kites migrate to their
Florida breeding grounds in late
spring and summer

35

The amazing life of butterflies

By Jaret Daniels

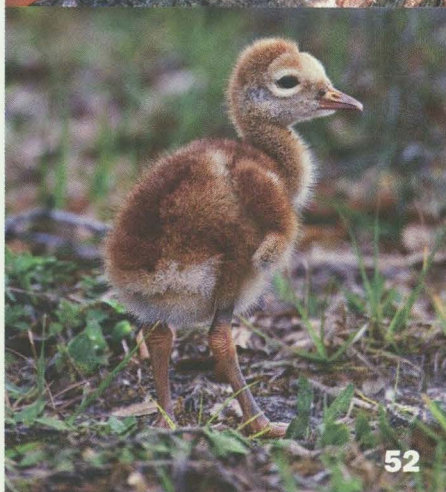
The life-cycle of butterflies and
some common Florida butterflies

JARET DANIELS

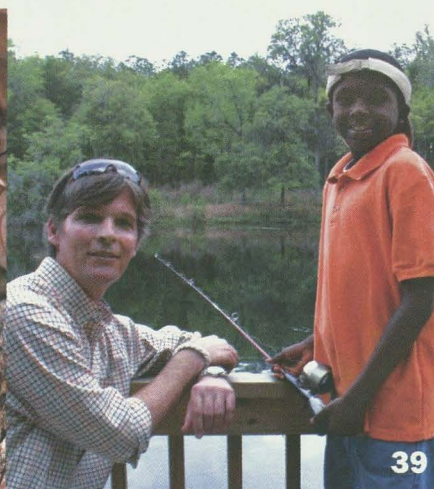


24

PAUL SIMISON

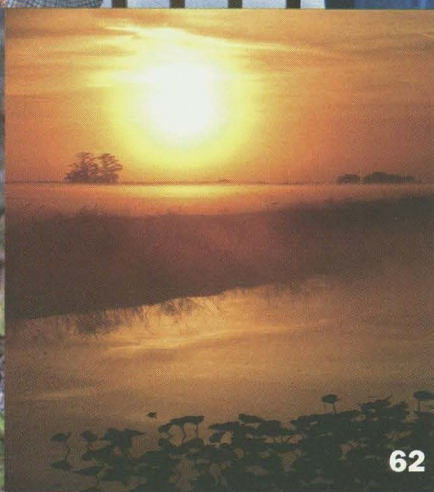


52



39

TIM LEWIS



62

DOUG ALDERSON

DEPARTMENTS

Director's Message 6

With a relatively small number of
employees, the FWC lives up to high
standards

News & Notes 10

Wildlife and outdoor recreation news

Species 20

Nest boxes bring red-cockaded
woodpeckers to the Osceola National
Forest

True Tales 28

The great toy-bow rabbit hunt

Viewing Nature 34

Looking for bright eyes in the night

Florida's WMAs 50

The Big Bend Wildlife Management
Area covers 70,000 acres of Florida's
wildest, most pristine habitats

Field Notes 57

FWC law enforcement officers face
daily challenges

FWC Update 58

News from the Commission

Wildlife Watch 68

Wildlife happenings around the state

Calendar 69

Events around the state

Fishing Follies 70

Hear that summer song of crickets

*Cover: John Brennan's
Pileated Woodpecker painting
is the winner of this year's
Florida Wildlife art contest*

FEATURES

39

It all begins with that first fish

By Patricia Behnke

Beau Turner forms a partnership
with the FWC to open the Beau
Turner Youth Conservation Center

42

2008 Florida Wildlife art contest winners

By FWC staff

Florida Wildlife brings back
its annual art contest
and announces the winners

46

Go dinghy camping

By Henry Cordova

A dinghy can carry campers
to places not accessible
by foot or land vehicle

52

Photographing a family of sandhill cranes

By Paul Simison

The author documents the family
life of sandhill cranes

62

New dawn for an old river

By Doug Alderson

The largest true ecosystem
restoration project in the world,
43 miles of the Kissimmee River
and 28,800 acres of wetlands,
will be restored by 2012

66

Florida's nonnative freshwater fishes

By Bob Wattendorf,

*Paul Shafland, Scott Hardin
and Paul Zajicek*

Nonnative freshwater fish species
present challenges to Florida's
native species

Volume 61

FLORIDA Wildlife

Issue 4

CELEBRATING OUR HERITAGE OF HUNTING, FISHING AND NATURE-BASED RECREATION

Published by the Florida Fish and Wildlife Conservation Commission

Our mission: Managing fish and wildlife resources for their
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Richard A. Corbett
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Dennis Lyons
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Printed by Drummond Press, Jacksonville, Fla.

Florida Wildlife (ISSN 0015-4369) is published bimonthly
by the Florida Fish and Wildlife Conservation Commission.
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guidelines before sending materials.

POSTMASTER: Send address changes to
Florida Wildlife Magazine, P.O. Box 6150
Tallahassee, FL 32314-6150.

Single copy price \$4. Subscription rate for
one year is \$19.95 (6 issues), two years \$39.95, three years \$59.95.

To subscribe, visit FloridaWildlifeMagazine.com or write
Florida Wildlife, P.O. Box 6150, Tallahassee, FL 32314-6150.
For subscription orders, please call 1-866-967-5600.

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Florida Wildlife Staff

Kelly Broderick, Editor-in-Chief
Steve Lewis, Circulation
John Papesca, Graphic Artist

FWC Community Relations

Sharon Lobello, CR Director & Publisher
Kent Whittington, Public Awareness Leader
Henry Cabbage, Senior Editor
Patricia Behnke, Contributing Editor
Tony Young, Contributing Editor
Tim Donovan, Photographer
Tim Lewis, Photographer

Editorial Office

2574 Seagate Drive, Suite 101
Tallahassee, FL 32301-8974
850-488-8984 or 850-488-8974
FloridaWildlifeMagazine@MyFWC.com

Contributors

Doug Alderson, writer/photographer
Arco Images GmbH/Alamy, photographer
Gray Bass, photographer
Sandy Beck, writer/photographer
Patricia Behnke, FWC
John Brennan, artist
Geoffrey Brown, FWC
Vince Brown, photographer
J. Castner/UF, photographer
Henry Cordova, writer
Jaret Daniels, writer/photographer
Tim Donovan, FWC
Marc Epstein/Visuals Unlimited, photographer
Capt. Fred Everson, writer/photographer
Betsy S. Franz, writer/photographer
David R. Frazier Photolibrary, Inc./Alamy, photographer
Joan L. Garcia, artist
Anne Gillick, FWC
Sebastian Green/Alamy, photographer
Officer Jeff Haynes, FWC
Scott Hardin, FWC
Thomas Krause, artist
Charlie Heldecker, photographer
Greg Lavaty, photographer
Tim Lewis, FWC
Buddy Mays/Alamy, photographer
Bob Mindick, photographer
David Moynahan, FWC
John Papesca, FWC
Karen Parker, FWC
Joe Richards/Seafavorites.com, photographer
Julia Recker, photographer
Jack Rogers, writer/photographer
Andy Sabol, writer
Paul Simison, writer/photographer
Paul Shafland, FWC
Fritz Seegers, artist
Liz Sparks, FWC
South Florida Water Management District
Doug Stamm/Stammphoto.com, photographer
Bobbi M. Twohey, artist
UF Institute of Food and Agricultural Sciences
Johnny Villaronga, photographer
Bob Wattendorf, FWC
William J. Weber, photographer
Michael Welch, artist
Paul Zajicek, FWC
Robert T. Zappalorti/Nature's Photo Images, photographer

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Coastal Conservation Association Florida (CCA)
strongly urges you to join our effort to...

Support Florida Sportfish

The Wildlife Foundation of Florida needs your help to make Florida's innovative Saltwater Hatchery and Habitat Initiative become a reality. The Initiative, a collaborative public/private effort, creates a network of state-wide fish hatcheries and ecosystem restoration facilities. There are several models for the facilities—from small indoor to large outdoor—so a facility can be designed to fit the site available. This is an extremely important project because it is vital that we keep Florida's saltwater fishing and marine habitats healthy and thriving for today and for future generations.

There are a number of ways you can help—we can't do it without you.

Join us today. Call the Wildlife Foundation of Florida toll-free at 1-800-988-4889, or visit our website: SupportFloridaSportfish.com.



WILDLIFE FOUNDATION OF FLORIDA

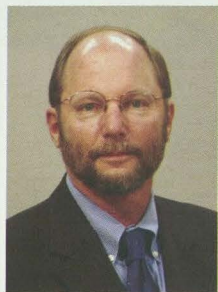
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Florida is like no other place on earth. Working together, we can keep it that way.

Illustrations courtesy of and © Diane Rome Peebles

Our small agency lives up to high standards



Kenneth D. Haddad
*Executive Director
Florida Fish
and Wildlife
Conservation
Commission*



The Florida Fish and Wildlife Conservation Commission (FWC) is a relatively small agency with roughly 2,000 employees, but it's amazing how so many of them are distinguished in their fields. They capture awards for excellence and earn other honors for their work year after year.

Just in the past year, Larry Perrin, who heads the FWC's wild turkey research and management efforts, brought home the highly prized Henry S. Mosby Award from the National Wild Turkey Federation. The State Law Enforcement Chiefs' Association presented its Officer of the Year award to FWC Officer Brad Stanley, along with an officer from another agency. This was the second time in two years an FWC officer has earned that award. FWC Officer Rick Francis won it the previous year. Officer Stanley also won the Officer of the Year award from the Shikar-Safari Club International.

On top of that, the chiefs' association elected FWC's law enforcement director, Col. Julie Jones as its president. Col. Jones also served a term as president of the National Association of Conservation Law Enforcement Chiefs.

The Coastal Conservation Association selected FWC Officer Audrey Warren as its FWC Regional Officer of the Year. It also honored Lt. Don McMillen, Lt. Camile Soverel, Investigator Tony Howell and Investigator Al Corfield as officers of the year for their work in "Operation No More Back Door," which resulted in hundreds of arrests and citations for illegal sales and purchases of seafood.

In the 27th annual Florida Police and Fire Games in Sarasota, FWC officers competed against 5,000 athletes from 200 agencies in 45 Olympic-style events. FWC officers Rob Miller, Patrick Conn, Clint Thompson, Rick Sloan, Louis Hinds, Daniel Miranda, Lt. Rodger Brutus, Lt. Roy Payne, Capt. Rob Beaton, Lt. Col. Don Holway and retired Lt. Col. Paul Hoover bagged a total of 31 gold, silver or bronze medals.

Wes Porak, a research scientist at the FWC's Eustis Fisheries Laboratory, earned the Fisheries Biologist of the Year award from the Southeastern Association of Fish and Wildlife Agencies. That association also

honored the FWC for minority recruitment.

Danon Moxley, manager at the FWC's Tenoroc Fish Management Area, won the Friend of the Florida Trail Award from the Florida Trail Association and the Sierra Club's Osprey Award for his untiring contributions to improving outdoor recreation opportunities and facilities.

The Snook Foundation honored one of the FWC's Florida Fish and Wildlife Research Institute scientists, Ron Taylor, as Person of the Year for his extensive snook research.

This magazine brought home a couple of Charlie Awards from the 2007 Florida Magazine Association conference. In addition, the Association for Conservation Information honored the magazine for excellence in writing by FWC staff and photography by Tim Donovan, and the FWC's Community Relations Office earned additional awards for a campaign to enlist landowners in conserving red-cockaded woodpecker habitat and for a brochure about Florida's snakes.

Stan Kirkland, public information coordinator in the FWC's Panama City office and a 31-year employee of the agency, is the new president of the Southeastern Outdoor Press Association – the second-largest outdoor-writers' group in the United States, with more than 550 outdoor-writer and corporate members.

The FWC's employees as a group stand out. In this year's Florida State Employees Charitable Campaign for the Big Bend region, they earned the agency three first-place trophies for having the most employees giving more than \$1,000, highest giving amount per employee, and for reaching 130 percent of their giving goal.

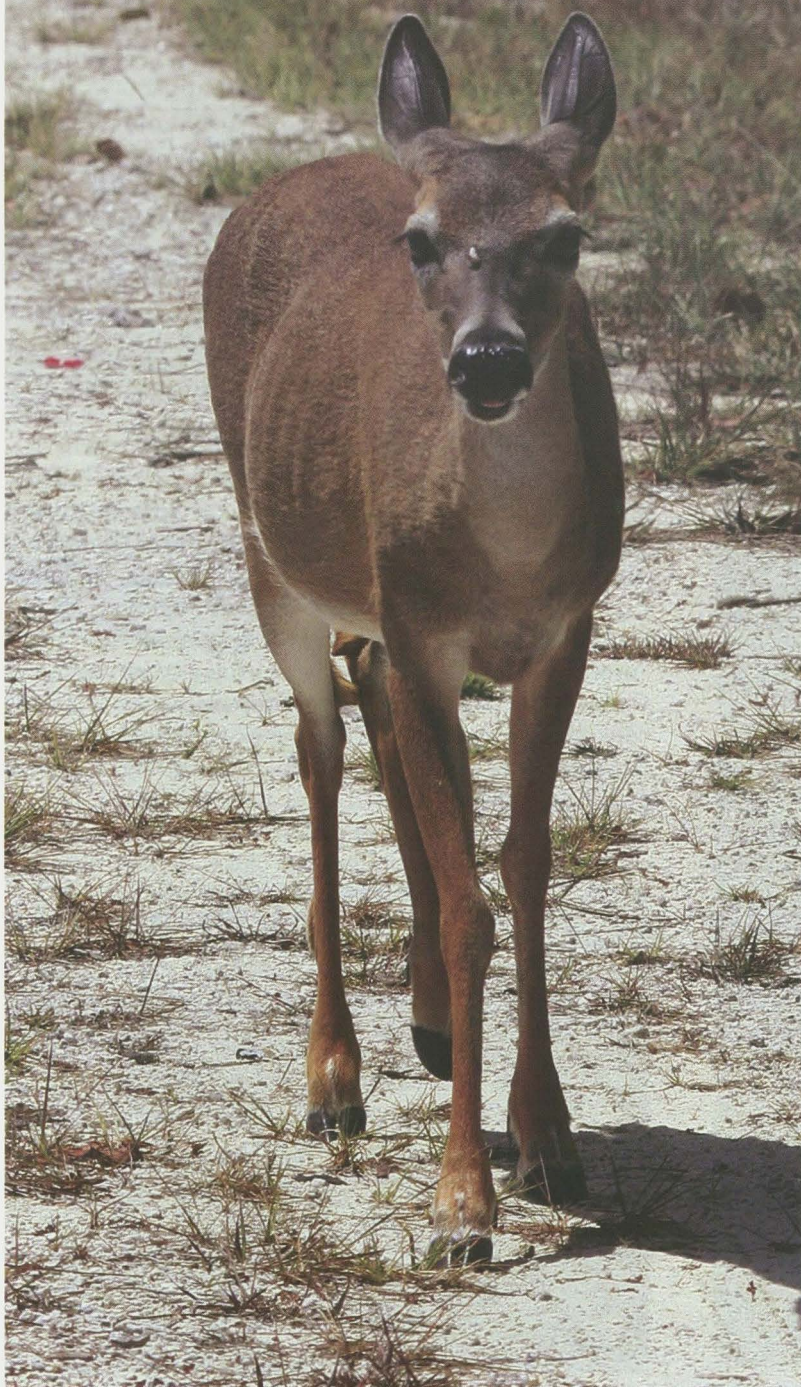
The list goes on and on, and that's just the list of honors from the past year. All over this agency, offices have plaques and certificates on the walls and trophies on the bookcases. It is a tribute to our staff that none of them go about trying to win awards, they just do their jobs with dedication and passion – wanting to be the best at what they do for Florida.

To me, it's an honor to count myself among the employees of this agency who measure up to such high standards in their work and their daily lives. **FW**

Sometimes it's a fine line between

help & harm

Article and photographs by Betsy S. Franz



Continued property development is forcing more and more wildlife to live in closer proximity to humans. While some humans aren't really fond of the idea, others are so enamored with visiting wildlife they try to encourage it, leaving food and water or even "rescuing" baby animals that are not in need of rescue.

It's a difficult situation for both humans and wildlife. People who think they are helping wildlife are, in many cases, doing more harm than good. And, depending on the species involved, they may also be breaking the law.

There are many books, videos and national programs that encourage people to create wildlife habitats in their own yards. According to these sources, all a homeowner has to do is provide food, water, shelter and places for the wildlife to raise their young. But the truth is, these four elements can cause more harm than help if they are not completely understood.

The first term that causes problems is the word "shelter." Too many people think the word implies an "abode" such as a birdhouse. But what it really means is "safety." Before you make an effort to attract wildlife to your yard, you need to make sure you are inviting it to a safe environment. This means no harmful chemicals, no wandering domestic animals and suitable places to hide from predators.

If your yard or neighborhood is full of wandering cats or if you own a dog or cat yourself, it might not prove advantageous to wildlife to be "invited" or lured to your yard. Dogs and cats are curious, playful and many are natural-born hunters. Some will eat anything they catch. Others will just "play" with their prey until it stops moving and no longer entertains them. Scientists estimate that nationwide, hundreds of millions of birds and billions of small mammals are killed by dogs and cats each year.

In Florida, it is
illegal to feed or “entice”
sandhill cranes, bears, raccoons,
foxes, manatees and alligators.



In fact, cats are considered primarily responsible for the extinction of 33 bird species since the 1600s.

On the other hand, if your yard or neighborhood is frequented by birds of prey or other predators such as foxes or raccoons, you should not “invite” birds into easily-accessible feeding or watering stations. Any supplemental feeders or water sources that you provide should not be placed in a large, open area of your lawn. Instead, place them close to an escape area, such as a planting of dense shrubs or trees. Birds and small mammals can scramble quickly through a bramble, leaving their pursuer behind.

If you invite birds and other wildlife to your yard, you should keep a close eye on your landscaping before you mow, prune, edge or use any other power tools. You could harm nesting wildlife, since many birds and other creatures raise their young in low bushes and shrubs. You should drive into and out of your property a little slower and check under your car before backing out. Also, keep in mind that lawn chemicals and insecticides can harm many forms of wildlife.

Even the terms food and water need some explanation when it comes to wildlife habitat. In Florida, it is illegal to feed sandhill cranes, bears, raccoons, foxes, manatees and alligators. Most wildlife experts agree it is not a good idea to provide supplemental food sources for any wildlife, with the possible exception of bird feeders. Providing food attracts wildlife into areas where it may meet or create dangerous situations. In addition, many people feed wildlife with scraps of “people food” which does not provide the proper nutrition that wildlife would find on its own.

Planting native berry or other food-bearing plants is generally the best way to provide food for local wildlife, as this does not change an animal’s natural behavior.

If you provide supplemental feeders or birdbaths for birds, they should be cleaned regularly (several times a week) with a 20 percent bleach and water solution. Damp or wet birdseed can sprout mold, which can lead to infections in birds. The droppings of infected birds can quickly spread the disease to other birds. Dirty birdbaths or hummingbird-nectar feeders can cause similar problems. Birdbaths should be rinsed and refilled daily to avoid breeding mosquitoes. Hummingbird-nectar feeders breed bacteria quickly and should be cleaned, and the nectar replaced, every few days.

Homeowners with waterfront property often enjoy luring manatees to their docks by dangling lettuce or offering them fresh water from a running hose. Both actions are illegal and can lure them to areas that may cause them harm.

Everyone loves the sight of a baby animal, and some homeowners feel it is their responsibility to “protect” animals born on their property by caging them or moving them in out of the elements. Others cause harm by trying to get too close or by handling the infant creatures. In general, you should never pick up a baby animal.

Although it is fun to watch wildlife families, avoid the temptation to get too close. Some wildlife will abandon a nesting site or move their babies too early if they feel they are being observed.





Even if the parents aren't scared away, your scent and your presence may attract the attention of lurking predators. Keep your observations at a safe distance – through the lenses of binoculars or a long telephoto lens.

Waking up to the sound of birdsong or catching sight of a visiting deer, rabbit or fox can add a certain sense of wonder to our lives. But, we must remember they are wild, living creatures. They do not visit our yards to entertain us. They are there seeking food, water and shelter. And as good hosts, it is up to us to provide it in a way that keeps their safety first and foremost in our minds. **FW**

Above and title page: Although it is illegal to “feed or entice Key deer,” many people ignore the law. This practice has led to Key deer approaching people and slow-moving vehicles for hand-outs. Road kills account for 70 percent of the annual mortality of Key deer. Illegal feeding also can facilitate the spread of parasites and disease. **Right:** It is always a good idea to take a close look around your yard before beginning any major landscaping. This cardinal baby was found in an area that was going to be cleared for a garden path. **Facing page, top:** Raccoons are more often found infected with rabies than any other animal species. This may be one of the primary reasons that it is illegal to feed them in Florida. **Bottom:** Although it is illegal to do so, some people feed alligators in neighborhood lakes and other waterbodies. The inherent dangers of this practice are obvious.





News & Notes

SFWMD stormwater treatment areas open to annual alligator hunts

The Governing Board of the South Florida Water Management District authorized the FWC to establish Stormwater Treatment Area 1 - West in Palm Beach County and Stormwater Treatment Area 5 in Hendry County as "Alligator Management Units" for the annual alligator hunting season. This will be the third season that the District has authorized use of these lands for alligator hunts.

The FWC will let permitted hunters take a total of 300 alligators from the two stormwater treatment areas on specified weekends in August, September and October. An estimated 1 million alligators can be found statewide, but only a small percentage may be hunted, and a permit is required.

Alligator hunts in the stormwater treatment areas are unique in that hunting is only allowed on weekends, and motorized boats are prohibited. The motorized boating restriction is designed to prevent boats from stirring up plants and sediments in the constructed treatment wetlands. Alligators may be hunted on foot from the levee banks or from non-motorized boats that can be paddled or poled.

Treatment wetlands are the workhorse for water quality improvements in the South Florida ecosystem. A decade ago, Everglades-bound waters contained excess nutrients. Today, the plant-filled wetlands use "green technology" to treat water and reduce phosphorus concentrations.

The use of District-managed lands for permitted hunting is part of the District's continuing commitment to open lands for public access and recreation. Alligator hunts do not affect the regular operation of the stormwater treatments areas.

For additional information about alligator hunting, and to apply for permits, visit MyFWC.com/gators and click the Statewide Hunts link.



WILLIAM J. WEBER

Female alligators rarely exceed 9 feet in length, but males can grow much larger. The Florida state record for length is a 14-foot, 5/8-inch male taken from Lake Monroe in Seminole County.

Apalachicola River fish passage to help shad and bass

In the midst of the battle over allocation of water from the Apalachicola, Flint and Chattahoochee rivers emerges a collaboration that will benefit the system and its species. After three years of study, fish passage operations are under way at Jim Woodruff Lock and Dam to restore dwindling



GRAY BASS

populations of migratory fish in the critical river system known as the Apalachicola-Chattahoochee-Flint (ACF).

Two species of fish whose populations have severely declined — Alabama shad and the Gulf strain of striped bass — are being assisted upstream using the existing lock. The U.S. Army Corps of Engineers has participated in the interagency study by incorporating operations that use the navigation lock to give the fish access to nearly 200 miles of previously inaccessible spawning habitat in the Flint and Chattahoochee rivers. The Army Corps will continue to partner in the study efforts by providing passage through the lock during spawning in the spring. It is anticipated that the fish passage operation may become a



GRAY BASS

Striped bass (top) and Alabama shad (above) have access to more spawning habitat due to a fish passage operation.

permanent part of operations in water control manuals currently being updated, which could take a few years.

"Restoration of these and other migratory fish populations can improve the overall ecology of the ACF river system, Apalachicola Bay and the Gulf of Mexico," said Steven Herrington, Ph.D., senior aquatic ecologist for The Nature Conservancy.

Three years of multi-partner research focused on the viability of using the lock to help migratory fishes repopulate from declines experienced after construction of the Jim Woodruff and other locks and dams throughout the ACF. Alabama shad is a federal "species of concern" and currently exists in only a fraction of its historical range, with the largest remaining population believed to be in the Apalachicola River. Scientists believe passage could allow shad populations to increase from an estimated 20,000 to 100,000 or more. The Gulf strain of striped bass has been managed since the 1980s, with the last natural population remaining there as well.

Great Backyard Bird Count sets new records

Bird watchers outdid themselves during the 2008 Great Backyard Bird Count (GBBC), sponsored by the Cornell Lab of Ornithology and the National Audubon Society. Participants submitted more than 85,700 checklists during the four-day event, Feb. 15-18, surpassing last year's all-time record by several thousand. Participants also identified a record 635 species and sent in thousands of stunning bird images from around the continent.

In this year's GBBC, yellow-billed magpie numbers hit a new low. Magpies, crows and jays are especially susceptible to the West Nile virus. American crow and blue jay numbers appear to have stabilized somewhat, but need continued monitoring as the populations of these birds continue to adapt to the presence of this new disease.

The GBBC charts the explosive geographic expansion of Eurasian collared-doves. The species has spread aggressively since it was introduced in Florida in 1980, and made new inroads this year. For the first time, GBBC records of this bird came from British Columbia, Manitoba and Oregon.

"Each year, awareness of the GBBC seems to spread," says Cornell Lab of Ornithology Citizen Science Director Janis Dickinson. "Committed individuals, nature centers, parks and schools adopted the GBBC as their own in an unprecedented way this year. They held bird walks, ID workshops and many other events tied to the count."

For a detailed summary of this year's results, visit the www.birdcount.org. Explore maps, beautiful photos, prize-drawing winners and a list of towns that topped their state for the number of checklists submitted.

Top 10 most-reported birds in the 2008 GBBC:

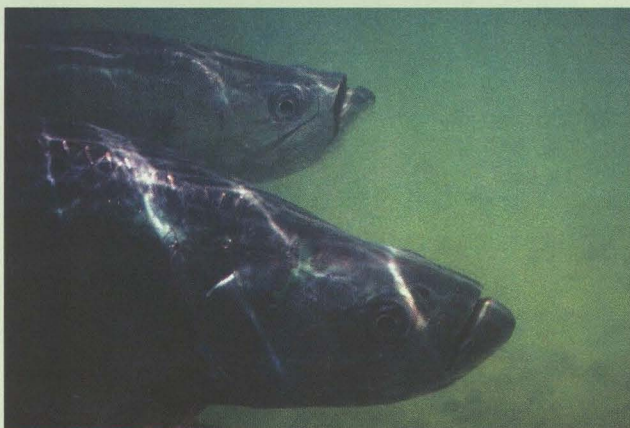
- 1) Northern cardinal
- 2) Mourning dove
- 3) Dark-eyed junco
- 4) Downy woodpecker
- 5) American goldfinch
- 6) Blue jay
- 7) House finch
- 8) Tufted titmouse
- 9) Black-capped chickadee
- 10) American crow



While flocks of several thousand American crows are not uncommon in northern states, in Florida, they are more typically seen in family groups of five to 10 birds.

WILLIAM J. WEBER

Biologists need help from public to collect tarpon genetic information



JOE RICHARDS/SEAFAVORITES.COM

Biologists at the FWC's Fish and Wildlife Research Institute (FWRI) and Mote Marine Laboratory need help from Florida anglers to collect tarpon genetic information.

The tarpon genetic recapture study gives anglers throughout Florida the opportunity to make a direct contribution to advancing scientific research for one of the state's most popular sport fish. FWRI provides a free and easy-to-use sampling kit to anglers who are interested in collecting DNA samples. The kit contains an abrasive pad that

anglers can use to remove skin cells from the outer jaw of the tarpon. Anglers should leave the fish in the water unless they have a harvest or possession tag to attach to the fish.

Biologists welcome samples from any tarpon regardless of size or capture location. Each DNA sample identifies a tarpon's unique genetic "fingerprint." Scientists compare new tarpon DNA samples with cataloged samples to determine if the tarpon has been caught and sampled previously. Scientists also use this information to determine movement of tarpon in waters off the coast of Florida.

Participants can obtain a tarpon DNA sampling kit by e-mailing TarponGenetics@MyFWC.com, calling 1-800-367-4461 or visiting research.MyFWC.com and searching for "tarpon."

Anglers who collect and return a DNA sample directly to FWRI or to one of the statewide collection centers will be entered in a random drawing for various prizes.

The FWRI and Mote researchers have successfully identified a total of four recaptured tarpon in state waters from the Miami, Florida Keys, Sanibel and Tampa Bay areas. FWRI will notify anglers if any of the fish they sample are recaptured.

To learn more about FWRI research projects, visit research.MyFWC.com.



News & Notes

New campaign urges people to “crush, don’t flush” unused medication

The Pharmaceutical Research and Manufacturers of America (PhRMA) signed a formal agreement with the U.S. Fish and Wildlife Service (FWS) and the American Pharmacists Association (APhA) to help protect the nation’s fish and aquatic resources from the improper disposal of medication. The campaign - dubbed “SMARxT DISPOSAL” - will inform people about how to safely dispose of medicines in the trash, and highlight the environmental threat posed from flushing medicines down the toilet.

“Trace amounts of chemical compounds often associated with medications have been increasingly detected in our waters, the very waters that support our nation’s fish and other wildlife,” said Gary Frazer, Assistant Director of Fisheries and Habitat Conservation, FWS. “While uncertainty still exists about the impact of these chemicals, FWS, PhRMA and the APhA recognize the value of getting in front of the issue by passing along a few easy steps.”

Just a few small steps can make a huge difference:

1. Do not flush unused medications or pour them down a sink or drain. While the rule of thumb is not to flush, the Food and Drug Administration has determined that certain medications should be flushed due to their abuse potential.

Read the instructions on your medication and talk to your pharmacist.

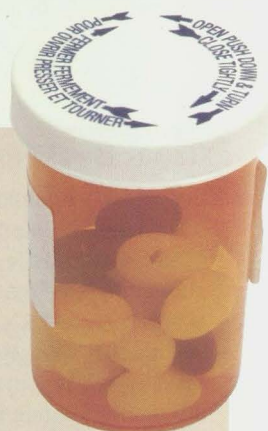
2. Dispose of unused medication in household trash. When discarding unused medications, ensure you protect children and pets from potentially negative effects.

3. Pour medication in a sealable plastic bag. If medication is a solid (pill, liquid capsule, etc.), crush it or add water to dissolve it.

- Add kitty litter, sawdust, coffee grounds (or any material that mixes with the medication and makes it less appealing for pets or children to eat) to the plastic bag.
- Seal the plastic bag and put it in the trash.
- Remove and destroy all identifying personal information (prescription label) from the medication container.
- Check for approved state and local collection programs. In certain states, you may be able to take your unused medications to your community pharmacy.

4. Consult your pharmacist with any questions.

Visit the SMARxT Disposal Web site at www.smarxtdisposal.net.



The pileated woodpecker is at home in a wide variety of habitats and can be found in deep forests, swamps, open woodlands, large parks and suburban areas with large tracts of trees.

Great Florida Birding Trail adds more sites

The FWC announces the expansion of the east section of the Great Florida Birding Trail to include new sites in 15 counties.

Both novice and expert bird watchers will enjoy the newly-added sites, including such famed birding destinations as Pelican Island National Wildlife Refuge near Vero Beach and Viera Wetlands near Cocoa, as well as little-known gems like Vaill Point Park in St. Augustine and North Sebastian Conservation Area in Sebastian.

“Many new sites feature species highly prized by birders, including the snail kite, Florida scrub-jay, limpkin, crested caracara, red-cockaded woodpecker, painted bunting and roseate spoonbill,” said Mark Kiser, FWC’s coordinator of the birding trail.

The 2,000-mile, self-guided highway trail is a network of 489 bird-watching sites across the state. The east section, which opened in 2000, was the first of the four Great Florida Birding Trail sections to be completed and is the first to undergo expansion.

In keeping with the Great Florida Birding Trail tradition, the 46 new sites offer a wide diversity of experiences, providing something of interest for all ages, mobility and skill levels, Kiser said. Beginning birders, families and those who require paved or hard-surface trails will find Chain of Lakes Recreation Complex in Titusville, Kissimmee Lakefront Park in Kissimmee and Alpine Groves Park in Switzerland to their liking. Viera Wetlands offers outstanding birding by car, as well as by foot or bicycle. Intrepid hikers will be challenged by Platt Branch Wildlife and Environmental Area in Palmdale and the new Colt Creek State Park near Lakeland. Machaba Balu Preserve in Jacksonville, Makinson Island Nature Preserve in Kissimmee and Rainbow Springs State Park in Dunnellon all provide exceptional “birding by boat” opportunities.

Florida is one of the most popular birding destinations in North America. With 501 recorded bird species, the Sunshine State has the greatest bird diversity east of the Mississippi River. The FWC is working on a new guide booklet for the east section of the Great Florida Birding Trail, which will be available by December 2008. For more information, visit www.floridabirdingtrail.com.

BASS donates \$20,000 to Florida Bass Conservation Center

In conjunction with the start of the 2008 Bassmaster Elite Series season, BASS made a contribution to the future of Florida's fisheries via the new Florida Bass Conservation Center (FBCC).

BASS donated \$20,000 to the construction and enhancement of the FBCC, whose mission is to propagate

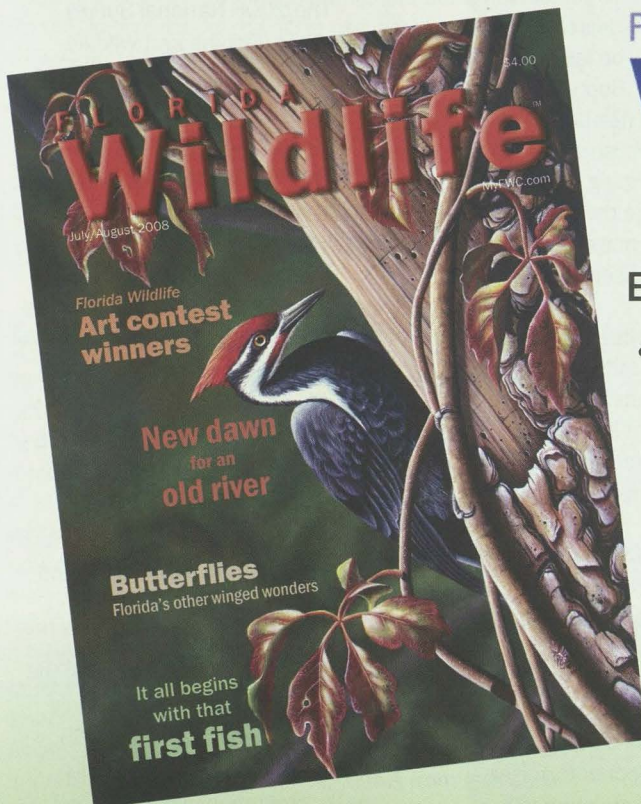


and raise the various strains of Florida largemouth bass, advance research into genetics and biology of Florida's largemouth bass and provide public education and outreach opportunities for the FWC.

"On behalf of FWC and the Wildlife Foundation of Florida, I sincerely thank BASS for this donation to the Florida Bass Conservation Center to further efforts in Florida bass conservation and management," said Darrell Scovell, FWC director of Freshwater Fisheries Management. "The FBCC is the focal point for bass conservation, research and management in Florida, and this donation demonstrates the commitment of BASS members to preserving and enhancing the state's valuable bass resources, so that Florida will remain the Fishing Capital of the World."

"We would like to make this donation to the FWC and the Florida Bass Conservation Center on behalf of our Florida host communities and as a gesture of appreciation for Florida's efforts to protect and conserve a species of fish near and dear to the hearts of BASS members everywhere," said Chris Horton, BASS conservation director.

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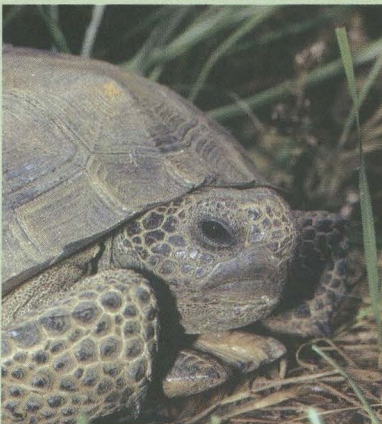
News & Notes

Plum Creek Timber Company provides new home for 1,781 gopher tortoises

The FWC and Plum Creek Timber Company took a major step to set up a new home for 1,781 gopher tortoises displaced by development.

A 570-acre site has been established within the Lochloosa Conservation Easement, near Orange Lake in Alachua County, for relocating tortoises. This site has been designated Unit 1.

"This new site is a pilot project to help us understand the logistics of providing desirable gopher tortoise habitat and implementation of the new FWC Gopher Tortoise Permitting Guidelines," said Deborah Burr, Gopher Tortoise Plan coordinator.



WILLIAM J. WEBER

These permitting guidelines were approved at the FWC's meeting April 9. Plum Creek received the FWC's first Recipient Site Permit for Unit 1 after the approval process. Rob Hicks, senior resource forester from Plum Creek, was presented with the permit during a ceremony at the meeting.

"We are excited to be working with the FWC team on this pilot program to help designate a safe environment for relocating gopher tortoises," Hicks said. "Plum Creek has a history of creating these kinds of conservation agreements to provide for the long-term management and protection of wildlife habitat across the country."

Prior to July 2007, tortoises could be relocated to such sites, or incidental take of the tortoises was allowed under a permit issued to the developer. Under an interim permitting system, the controversial take permits were discontinued last July.

Since the plan was approved, stakeholders have worked with the FWC to develop new guidelines for management of the species and permit requirements, Burr said.

The overall goal of the management plan is to restore and maintain secure, viable populations of gopher tortoises throughout the species' current range in Florida.

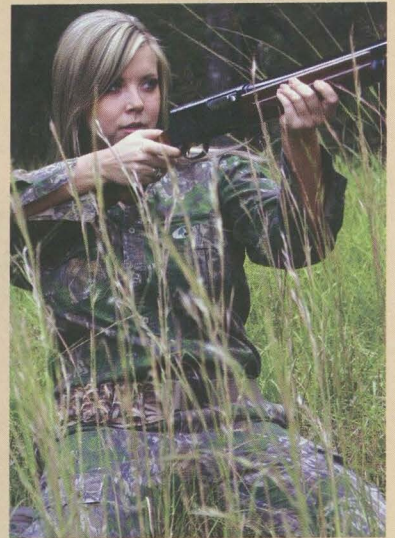
"Objectives include improving gopher tortoise carrying capacity on lands with existing or potential gopher tortoise habitat; increasing the amount of protected gopher tortoise habitat; restocking gopher tortoises to protected and managed areas; and decreasing gopher tortoise mortality on lands proposed for development," Burr said.

This permit system has been designed to help accomplish all four of these objectives by providing incentives to landowners to manage their habitat for gopher tortoises, animals that share habitats with tortoises, and other native wildlife species.

"The plan also provides incentives to relocate and restock tortoises to protected, managed lands rather than unprotected sites," Burr said. "The new permitting system requires that all gopher tortoises be relocated out of harm's way."

According to Plum Creek officials, the company is working with the St. Johns River Water Management District to expand the gopher tortoise relocation site to include all 16,470 acres of the Lake Lochloosa Conservation Easement Area. That could allow for approximately 17,000 gopher tortoises to be relocated. There is no other site of this size in Central Florida.

Number of female hunters increasing



VINCE BROWN

According to a survey by the U.S. Fish and Wildlife Service (FWS), more women, especially younger women, are participating in hunting.

The 2006 National Survey of Hunting, Fishing and Wildlife-Associated Recreation produced by the FWS indicated that while the total number of hunters decreased 11 percent between 1991 and 2006, the number of women taking to the sport is actually increasing.

Women make up about 9 percent of the 12.5 million hunters in the U.S., showing a slight increase, according to the survey.

More interestingly, the survey showed that 304,000 girls ages 6 to 15 hunted from 2001 through 2006, which was a 50-percent increase over the period of 1991 through 1996. The FWS collected data for the National Survey of Hunting, Fishing and Wildlife-Associated Recreation through the U.S. Census Bureau. This survey has been produced since 1955, and it is considered one of the most comprehensive and oldest of its kind.

Florida fish kills common during summer but need reporting

Reports of dead fish, ranging from a few individuals to hundreds of thousands, prompt dozens of calls per week to the FWC during the summer.

Apprehensive callers to the FWC's Fish Kill Hotline worry something must be terribly wrong; others just want to know the causes.

Fortunately, the mechanism at the root of most summertime fish kills in brackish estuaries, freshwater lakes and man-made retention ponds is well understood by scientists. Ironically, a lack of sunshine in the Sunshine State is where problems begin. The process starts with overcast skies, hot summer days and rainy weather. Low water levels, brought on by drought, add to the mix.

Most of the oxygen fish breathe is created when waterborne microscopic plants use sunlight to produce and add dissolved oxygen to the water, a process known as photosynthesis. But when overcast skies persist for several days, there is often not enough sunlight to power the oxygen-making process that supports fish life.

Heavy rain and wind from thunderstorms add to the problem by stirring up bottom sediments that muddy the water, further reducing sunlight penetration in the water column. Rainwater runoff also washes large amounts of decaying plant and animal material into the water body. In the decay process, bacteria use dissolved oxygen in the water to break down plant and animal matter, further dropping oxygen levels.

"If these conditions persist, and dissolved oxygen levels drop for extended periods, fish suffocate," said Jeff Willitzer, FWC fisheries biologist.

In short, during extended periods of overcast, rainy or cloudy weather, the biological system uses dissolved oxygen

faster than it can produce it. Heavy weather aggravates the situation by creating and intensifying all the conditions that lower dissolved oxygen levels in the water.

The good news is that most water bodies don't suffer repeat performances every year. In fact, most water bodies go years without suffering a major fish kill.

"In spite of summer fish kills, most Florida lakes are in relatively healthy shape and fish populations remain stable. Angling success generally is not affected over the long haul, even after events that might appear serious to the untrained eye," said Willitzer, who is also an avid angler.

Still, it's important for biologists like Willitzer to keep track of the location and extent of fish kills in natural lakes and estuaries to see if there are serious problems developing in an ecosystem that might require investigation or restorative measures.



Information provided by hotline callers is immediately relayed to researchers investigating fish kills.

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Imported aquacultured clams found to have foreign disease

Vividly colorful giant clams, *tridacnids*, decorate many an upscale aquarium. But experts say they boast an exterior beauty that masks an ugly truth: their potential for carrying foreign diseases.

In findings that may impact the reef clam industry as well as international trade, a University of Florida veterinary pathologist, Barbara Sheppard, recently discovered *Perkinsus olseni*, a foreign pathogen, in aquacultured clams imported from Vietnam.

While not believed to be a threat to human health or other reef aquarium species, the pathogen's presence concerns scientists as well as aquaculture industry representatives and points out the largely unregulated environment in which the importation of aquacultured reef clams from Asia occurs.

"This is an important finding," said Ralph Elston, president of AquaTechnics, a Carlsborg, Wash.-based company. "It

indicates the potential risk of the spread of animal disease when health monitoring is not in place to control such risks."

"This is not a zoonotic disease, transmissible to people," Sheppard said. "No one is going to get sick from this, as far as we know. The problem here is economic and international trade. We know that *Perkinsus* is a pathogen of aquatic shellfish, and the reason it is so important is that it makes animals very vulnerable to dying when the weather gets hot or when they get stressed in some other way."

Although the infected clams were found in Florida, *tridacnids* are imported and distributed to hobbyists throughout the United States.

"This is a great example of why you should never release an aquarium animal anywhere, under any circumstances," said Ruth Francis-Floyd, director of UF's Aquatic Animal Health Program.



News & Notes

Fish and Wildlife Service conducts five-year status reviews of 18 Florida species

The U.S. Fish and Wildlife Service plans to conduct five-year status reviews of 18 threatened and endangered species that occur mostly in Florida, including a mammal, a fish, a bird, a snail and 14 plants.

A five-year review is conducted to ensure that a listing classification under the Endangered Species Act (ESA) is accurate. This review covers the endangered Key Largo cotton mouse and 11 endangered plants: four-petal pawpaw, Florida golden aster, Apalachicola rosemary, Okeechobee gourd, beautiful pawpaw, Garrett's mint, scrub mint, Harper's beauty, gentian pinkroot, scrub plum and Florida ziziphus. It also covers six species listed as threatened: Audubon's crested caracara, Gulf sturgeon, Stock Island tree snail and three plants: white birds in a nest, Godfrey's butterwort and Florida skullcap.

This review seeks information on:

- Species biology, including population trends, distribution, abundance, demographics and genetics.
- Habitat conditions, including amount, distribution and suitability.
- Conservation measures that have been implemented.
- Threat status and trends.
- Other new information, data or corrections, including taxonomic or nomenclatural changes, identification of erroneous information contained in the ESA list and improved analytical methods.

In addition to reviewing the classification of these species, a five-year review presents an opportunity to track the species' recovery progress. It may benefit species by providing valuable information to guide future conservation efforts. Information gathered during a review can assist in making funding decisions, conducting interagency consultations, making permitting decisions, and determining whether to update recovery plans and other actions under the ESA.



At one time, caracaras were common in the prairies of Central Florida, but their numbers declined as their favored habitat was converted to housing developments, citrus groves and improved pastures.

JACK ROGERS

New navigation software includes manatee and homeland security zones



FWC STAFF

Navigation software produced by Garmin is the first to feature manatee and homeland security zones in Tampa Bay – thanks to a partnership between Garmin, the FWC and the Tampa Bay Estuary Program's Manatee Awareness Coalition (MAC).

The information is available on all new Garmin GPS chart plotters, as well as on the navigation chips (SD cards) boaters can buy to update their existing chart plotters.

Boaters using the updated electronic charts will see manatee zone boundaries highlighted as they scroll over portions of Tampa Bay where slow speed zones have been established, such as Old Tampa Bay and the Manatee River. Homeland security zones – including those around MacDill Air Force Base and the Port of Tampa – also are displayed on the chart plotter. In addition, a pop-up window tells boaters whether the area is idle speed, slow speed or no-entry, and also whether speed restrictions are seasonal or year-round.

The pilot project in Tampa Bay was a joint effort of Garmin, the FWC's Fish and Wildlife Research Institute (FWRI) and MAC. Mapping experts from FWRI and MAC members began discussing the concept more than a year ago, and the digital files showing the zones were provided by FWRI.

Florida sea turtles update

In the May/June 2008 issue of *Florida Wildlife Magazine*, there were inadvertent errors in the *Florida's sea turtles* ID pictorial on pages 35-36.

The scientific name of the Kemp's ridley sea turtle was changed years ago from *Lepidochelys kempi* to *Lepidochelys kempii*.

The photograph identified as a Kemp's ridley is of a green sea turtle.

In the hatchling photo, the hatchling on the right is a green sea turtle and the one on the left is a loggerhead. The loggerhead hatchling pictured does not have white-gray bordered flippers, which is not always an identifying characteristic of this species.

SFWMD helps restore habitat in Caloosahatchee River

To help restore aquatic habitat in the Caloosahatchee River and Estuary, the South Florida Water Management District (SFWMD) launched an experimental project to learn if tape grass planted upstream of the Franklin Lock and Dam (S-79 water control structure) on the Caloosahatchee River can help re-seed the estuary downstream. Beds of tape grass provide



Tape grass is a salt-tolerant, freshwater plant that provides food for waterfowl and is a critical habitat for shellfish and finfish.

prime habitat for native juvenile blue crabs, fish and other species that spend early developmental stages in shallow estuaries where they can hide from large predators.

District scientists and contractors will plant tape grass, *Vallisneria americana*, in circular beds at five locations in the Caloosahatchee River. The native wide-bladed grass typically grows in Florida's fresh or mildly saline waters.

By planting the tape grass upstream of the Franklin Lock and Dam, the new plants will be less vulnerable to changes in salinity levels nearer the coast and so may continue providing seed stock to downstream areas. It will take three months to complete the \$49,000 study. Tape grass for the study is being harvested from an experimental pond at Lee County Hyacinth Control District, which is providing the plants at no cost.

Workers will plant three beds at each location. Two of the beds will be surrounded by a wire mesh cage to help prevent turtles and fish from eating the fresh grass. The third bed at each site will be left unprotected as a study control.

The multi-year rainfall deficit has dramatically reduced the amount of freshwater runoff and river flows available to help maintain the right salinity balance for tape grass to grow in the Caloosahatchee Estuary.

Overfertilizing St. Augustine grass could encourage chinch bugs

A little fertilizer can perk up a St. Augustine grass lawn, but homeowners who overdo it may find they're growing more than grass.

A University of Florida (UF) study suggests that repeatedly using large amounts of nitrogen fertilizer can ignite a population explosion of Southern chinch bugs — the No. 1 insect pest of St. Augustine grass, the state's most popular turf grass.

"Everything in moderation," said Eileen Buss, an associate professor of entomology with UF's Institute of Food and Agricultural Sciences. "When we try to overly manage a natural system we get the balance out of whack."

UF turfgrass experts advise homeowners to use no more than one pound of slow-release nitrogen fertilizer per 1,000 square feet of lawn.

In the study, Southern chinch bugs produced the most eggs on St. Augustine grass fed the equivalent of two pounds of nitrogen per 1,000 square feet per month.

That rate is a worst-case scenario, she said, but not unrealistic because people sometimes deliberately overfertilize in their zest to have the greenest lawn in the neighborhood.

That more-is-better approach has become riskier in the past five years because Southern chinch bugs in Citrus, Escambia, Flagler, Hillsborough, Lake, Orange and Volusia counties have developed resistance to pyrethroids, the class of pesticides commonly used to control the insects, Buss said.

Resistant chinch bugs may be able to survive exposure to bifenthrin, a pyrethroid that is the top choice for Southern chinch bug control in Florida. However, pyrethroids should still perform well against nonresistant populations of Southern chinch bugs.



Southern chinch bug adults rarely measure more than 6mm in length but cause millions of dollars in damage each year.



News & Notes

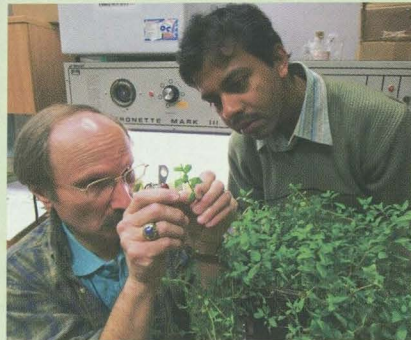
UF researchers seek bugs to battle aquatic weed plaguing Central and South Florida

Years of hydrilla control efforts have paid off for some Florida communities — unfortunately, their success has benefited a more troublesome aquatic weed, a University of Florida (UF) expert says.

For the past decade *Hygrophila polysperma* — a southern Asian plant known as “hygrophila” for short — has been taking over the ecological niche left when hydrilla was eradicated from waterways, said Jim Cuda, a UF associate professor of entomology. It’s now a significant problem in South and Central Florida.

Like hydrilla, hygrophila (“high-GRAW-fill-uh”) was sold as an aquarium plant, got into Florida waters decades ago and survived. But the similarities end there.

Hydrilla is strictly a water weed, and can be controlled with herbicides, hungry grass carp or mechanical harvesting. Hygrophila can grow fully submerged or up on river banks. Herbicides aren’t very effective, grass carp don’t like it, and mechanical harvesting breaks its stems into tiny pieces capable of spawning new plants.



UNIVERSITY OF FLORIDA'S INSTITUTE OF FOOD AND AGRICULTURAL SCIENCES

Entomologist Jim Cuda, left, and graduate student Abhishek Mukherjee examine Hygrophila polysperma — an invasive aquatic weed that has become a significant problem in Central and South Florida.

Given that scenario, Cuda and colleagues with UF’s Institute of Food and Agricultural Sciences are looking for natural enemies that attack the plant on its home turf in India.

“There aren’t any good, cost-effective management options for hygrophila,” Cuda said. “That’s why there’s interest in biological control.”

Last fall, Cuda and entomology graduate student Abhishek Mukherjee made a collecting trip to several Indian states. They found evidence of at

least one insect Mukherjee hopes to capture on a return trip this summer. They also collected samples of wild hygrophila that are being genetically analyzed to determine if they’re identical to plants found in Florida.

If so, that would mean insects and diseases found in the same parts of India would be likely to attack the Florida hygrophila. If not, the researchers may keep trying to pinpoint the original home of Florida hygrophila and seek enemies there.

Hygrophila closely resembles native alligatorweed. Residents who think they’ve found a patch should not try to destroy it, but instead contact their county extension office, at www.solutionsforyourlife.com.

In the United States, hygrophila is currently growing wild only in Florida and Texas. It’s been officially confirmed in 10 Florida counties, though Cuda suspects it’s present in at least 20. Research indicates the weed can survive cold climates, and could potentially spread as far as hydrilla did — from Delaware to Florida, all along the Gulf Coast and north to Washington state.

Tag sales help sea turtles survive

It is sea turtle nesting season and this year, like every year, thousands of sea turtles will storm Florida’s sandy nesting beaches in the battle for survival.

Sea turtle conservation groups, researchers and coastal counties all play important roles in helping sea turtles survive. Through the Florida Sea Turtle Grants Program, which is funded entirely by sales of the sea turtle specialty license plate, groups around Florida are receiving financial reinforcement in the form of grants supporting education,

conservation and research projects benefiting Florida sea turtles.

This year, grants totaling more than \$360,000 were awarded to 29 different organizations and local governments. The nonprofit Caribbean Conservation Corporation, which administers the Sea Turtle Grants Program, hopes the projects chosen for support this year give sea turtles a better chance at survival.

Launched in 1996, the “Helping Sea Turtles Survive” specialty license plate raises money to support the Sea Turtle Grants Program. Funding is awarded through a competitive application process to local governments, educational institutions and Florida-based nonprofit groups for projects involving



CARIBBEAN CONSERVATION CORPORATION

A researcher checks a sea turtle’s flipper for a tag.

research, education and conservation benefiting Florida sea turtles.

The sea turtle plate is one of the top five selling specialty tags in Florida.

To learn more about the Sea Turtle Grants Program and the “Helping Sea Turtles Survive” specialty license plate, visit www.helpingseaturtles.org.



Refuge system battles invasive species

Invasive plants and animals — introduced to the lands and waters of the United States from foreign shores — continue to plague national wildlife refuges. Some efforts to stem this threat are in place and taking hold. But there are other steps people can take to help by slightly altering their routines.

About 2.4 million acres of the 98-million-acre National Wildlife Refuge System (NWRS) are infested with invasive plants, according to the 2007 Refuge Annual Performance Plan. Additionally, 4,423 invasive animal populations occupy refuge lands — from the brown treesnake overrunning Guam National Wildlife Refuge to the more common nutria, a species in many states that was brought from South America when its fur was highly marketable.

Five Invasive Species Strike Teams have been mobilized by the NWRS to respond to the detection of new and threatening infestations. They are working in Arizona, New Mexico, the Upper Missouri/Yellowstone/Upper Columbia River basins, South Florida, North Dakota, and Hawaii and the Pacific Islands.

Citizen support is key in the battle against invasive species. The NWRS has worked for the past three years with the National Wildlife Refuge Association, The Nature Conservancy and the National Institute of Invasive

Species Science on a program that has enabled about 2,750 volunteers to inventory, treat and restore more than 211,000 acres of Refuge System land.

Learn how to fight:

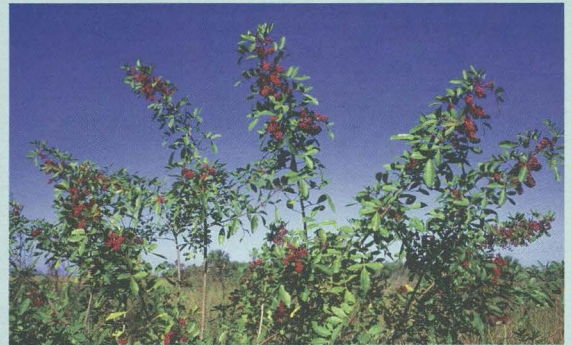
In collaboration with the Center for Invasive Plant Management, the NWRS has designed an online training course for volunteers and others interested in fighting invasive plant species — one of the single greatest threats to the Refuge System. The new Web-based training course, www.fws.gov/invasives/volunteersTrainingModule, includes video, text and photos that provide information about the science and management of invasive plants.

When fishing:

- Don't dump any bait, especially minnows or crayfish, into streams or lakes after fishing.
- Be sure to inspect and thoroughly clean your fishing gear, including boats, trailers and waders. Invasive plants and animals, like hydrilla and zebra mussels, can quickly spread to uninfested waters by hitchhiking on gear used by anglers.

In the garden:

- When looking for ornamental plants or groundcover, use native plants. Many areas have nurseries specializing in local native plants, or



Brazilian pepper is one of the most aggressive nonnative plants, and it has invaded nearly all of Central and South Florida's land ecosystems.

search online for your local native plant society.

- If you do use a nonnative plant, ask your local nursery if it is an invasive species in your area.
- When buying a potted plant, check for unwanted weeds growing in the pot and make sure to pull them out before planting.
- When you pull unwanted weeds, make sure to remove the entire plant and carefully bag it for disposal. Seeds from a dying plant can spread into uninfested areas.

Volunteer:

More than 36,600 people already donate their time to national wildlife refuges. To join this outpouring of public concern for public lands — whether to fight invasive species or help in other ways — find information about volunteering on the Web at volunteer.gov.

Fish and Wildlife Service announces grants for sewage pumpout facilities for boaters

U.S. Fish and Wildlife Service Director H. Dale Hall announced that more than \$13.6 million in grants will be awarded to 27 states under the Clean Vessel Act grant program in 2008. The grants will be used to fund the construction and installation of sewage pumpout facilities and floating restrooms, to purchase pumpout boats and for educational programs for recreational boaters.

"As an avid boater, I know the

importance of keeping America's waterways healthy and safe for people and wildlife," said Hall. "The Clean Vessel Act grants are a key part of our efforts to have safe and clean water."

Since its inception in the early 1990s, the program has awarded nearly \$150 million to install thousands of sewage pumpout stations. In addition, many states now rely upon mobile sewage pumpout boats to make the sewage collection process more

efficient and convenient. Several states have begun installing floating restrooms and pumpout stations in high-use areas of lakes and coastal locations.

The Florida Department of Environmental Protection will receive \$3,540,848 to fund more than 95 pumpout projects, including sewage pumpout stations, floating restrooms and pumpout boats for inland and coastal waters.

Nest boxes bring red-cockaded woodpeckers to the Osceola National Forest

By Karen Parker

Installing nest boxes for red-cockaded woodpeckers is not a job for someone afraid of heights, because the process begins by climbing 20 feet into a pine tree.

But Ralph Holton, a biologist with the FWC, made the job look easy as he installed a red-cockaded woodpecker nest box in the Osceola National Forest. Holton paused for a moment when he heard a bird calling out nearby.

"They're really curious," Holton said. "As soon as we leave, the woodpeckers will be over here, checking out the new nest box."

Larry Wood, a contractor working with Holton, performed ground support duties for the installations. He had already fulfilled his contract for 75 nest boxes but volunteered to install an additional 25 with Holton. Wood also builds the boxes, which resemble a mutant loudspeaker.

"The wire on the front of the box keeps pileated woodpeckers from enlarging the entrance and taking over the nest for themselves. The white PVC pipe lining the entrance keeps out red-bellied woodpeckers," Wood said. "We can't keep out everything because

flying squirrels can still take over a nest, but this gives the smaller red-cockaded woodpeckers a fighting chance against the other woodpeckers."

To begin the installation, Holton first chose a tree, which had to have a diameter of at least 14 inches. He then scaled the tree, encased in safety harnesses and equipment.

"The higher, the better," Wood said. "When we have a burn come through, either controlled or wildfire, the nests are better off if they're high in the trees."

Once secure at about 20 feet, Holton scraped off the bark of the pine. He made small holes in the tree for "sap wells" to begin the flow of pitch around the new nest. Sap covers the area around the nest and will help keep away tree-climbing snakes.

Using the box, he traced its outline on the bark. He fired up the chainsaw and cut the rectangle shape. Using a hammer and chisel, he removed the wood and shaped the cavity for the new nest box. Holton slid the box into the hole and secured it with shims. He coated the new nest with wood putty and spray paint to look more natural. After climbing back to the ground, Holton spray painted a white ring around the base of the tree to help identify where the nest box had been installed.

"These birds normally carve out a cavity in a mature pine tree, and they are the only southeastern bird that excavates cavities in living pines," Wood said. "But the trees we have in Osceola simply aren't old enough. These boxes allow for nesting in young trees that normally wouldn't be home for these birds."

The birds live in small, family groups, composed of one breeding pair and several helpers. The extra birds usually are males from previous breeding seasons; females rarely stay with their parents. The helpers assist in raising the young, including incubation, brooding and feeding. The entire family usually forages as a group, moving together from tree to tree. In 1810, Alexander Wilson, an English ornithologist, named the bird "red-cockaded woodpecker." The name confuses people today but was easily understood in the early 1800s.



FWC FILES

Red-cockaded woodpeckers feed primarily on ants, beetles, caterpillars, wood-boring insects, spiders, cockroaches and occasionally fruit and berries.

"The American revolutionary army couldn't afford brass for badges of rank and often substituted a colored feather stuck in the corner of the hat to indicate rank. These feathers were called 'cockades,'" Holton said. "The male red-cockaded woodpecker has only a few red feathers on the side of his head. And that's how he got his name."

The bird, federally protected as an endangered species since 1970, is listed as a species of special concern in Florida. Habitat destruction attributed to logging, development and aggressive control of forest fires has had an impact on the population decline of red-cockaded woodpeckers. These actions have wiped out most of the South's longleaf pine forests and put a stop to regular burning necessary to maintain healthy pines. Almost 97 percent of red-cockaded woodpecker habitat has been lost in the past 100 years, according to FWC biologists.

Florida hosts approximately 25 percent of the nation's red-cockaded woodpecker population, with an estimated 1,100 active family groups. Many of Florida's populations are carefully managed on public lands.

"We have approximately 300 red-cockaded woodpeckers in the Osceola National Forest, living in 100 active clusters," Holton said. "With our help, these birds are making a comeback." **FW**



FWC FILES

FWC biologist Ralph Holton removes wood from a pine tree and forms sap wells around a future red-cockaded woodpecker home in the Osceola National Forest.



Drifting for pompano

Article and photographs by Capt. Fred Everson



When Capt. Mark Thomas called me early one morning to invite me on a trip to catch some pompano, he knew my answer before he called. He knows I love to fish for pompano because they are truly amazing. They are a 15-inch fish that fight like they weigh 15 pounds, and to top it off, they taste pretty good, too. So, yes indeed, I was on the road to meet him at southshore Tampa Bay's Cockroach Bay boat ramp 20 minutes after he called.

Pompano are practically indistinguishable from similar-sized permit, but that doesn't really matter — size and bag limits for both species are combined in Florida: six fish between 11 and 20 inches fork length, with one fish over the top of the slot allowed in an angler's bag, and two oversized fish per vessel.



We motored across the bay in Mark's 22-foot boat, and headed toward the Sunshine Skyway Bridge. The bay was dead-flat calm, and the ride was pleasantly cool for the last week in July. It would get very hot later in the morning, but there was a light breeze when we made our first drift across the flats in front of a pass.

One of the good things about drift-casting jigs for pompano is the variety of other fish you are apt to encounter. A pompano jig is merely a miniature bucktail jig tied with a short skirt. Usually, nylon replaces the deer hair. Beats me what fish think they are, but most gamefish love them, including redfish, snook, trout, tarpon, cobia, shark, jacks and ladyfish. The pompano jig is a great way to downsize your lure when fish are finicky. Drifting a flat and catching fish while casting artificials is a pretty cool thing to do in the heat of summer.

My choice of rod for this type of fishing is a very long spinning outfit, rigged with 10-pound test line. Some guys like the braid, but for casting artificials, I still prefer mono; it's just less trouble when making repetitive casts. It is also easier to tie, and with fish that surge as pompano and permit are apt to do, it is more forgiving. I tie my own rods on 7-weight fly rod blanks, trimming 3 inches off either end to get it down to a manageable casting length of 8.5 feet. I have tried fishing these blanks at 9 feet, and they are too unwieldy for my taste. I also fit them with a 5-inch butt – shorter than what you might expect on a long rod, but easy on the wrist with repetitive casting of artificials. The whippy tip of the rod is ideally suited to firing pompano jigs between 1/4 and 1/2 ounce for distance.

When you are blind-casting a flat, the farther you cast, the more water you cover, the more fish you catch. With summer water temperatures on Tampa Bay in the high 80s and low 90s, poor water clarity precludes sight fishing. I like to fling the jig as far downwind as I can, and then hop it back across the bottom with a slow, jerky retrieve. You can tell a pompano from anything else that hits the jig because they often tap it a few times before finally eating it. Then the fun begins. These fish are pure muscle and take drag way out of proportion to their size.

Left, top to bottom: Capt. Mark Thomas looks to the wake for skipping pompano while motoring north of the Sunshine Skyway Bridge; any fish will taste better if it is iced as soon as it is landed; pompano often are found hanging around bridge pilings; a gaftopsail catfish also found the pompano jig irresistible. **Facing page:** A pompano's strength is much greater than its size would indicate. **Previous page:** Capt. Fred holds a pompano that is just the right size for fine dining.

Some dedicated pompano anglers prefer live bait, and sand fleas are the No. 1 choice for the saucer-shaped fish. Fiddler crabs are a close second, and shrimp will do when neither of the first two choices is available. This is fine when fishing from a beach with several rods in sand spikes, but I find blind-casting from a drifting skiff is busier, and productive most of the time. The other thing about fishing with pompano jigs is that you never know what will eat one.

The key to a successful drift is constantly paying attention to where you are when you hook up. Keep an eye on various landmarks and try to triangulate your position so you can repeat it. You could use a GPS, but since the fish are moving, you don't need that kind of precision. I enjoy trying to position the boat to get it to drift through the right location, and no matter what I do, each drift is a little different. This is another aspect of pompano fishing that appeals to me – every drift is fraught with anticipation.

Capt. Thomas and I fished the Gulf side of a bridge on an outgoing tide with a light breeze blowing the same direction as the tide. Occasionally, a pompano would skip in our wake as we idled into position for the drift. This is the optimum condition in drifting for pompano, and while we were not disappointed, it was no blitz. We caught several ladyfish before I felt a little tap-tap, followed by the hammer. The rod doubled over and the drag whined and the first pompano was on. I was fishing a 3/8-ounce jig with an egg-shaped, chrome-plated head and a short yellow skirt of nylon, tied with red thread. It has caught many pompano, and a bunch of other species. It gets hit so often, I like to give the thread that secures the skirt a coat of half-hour epoxy to help it hold up better. Even so, if you catch a few ladyfish on it, they chafe through the glue.

When the first pompano hit, Capt. Thomas made a mental note of our boat position so we could repeat it on the next drift. With the wind and the tide, each drift across the flat lasted about 20 minutes; then we would fire up the engine and try it again.

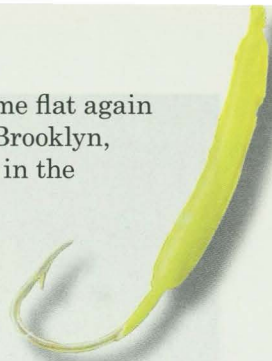
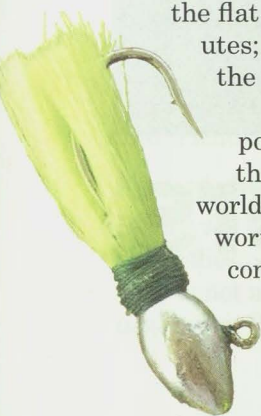
We each caught one pompano on the next three drifts – hardly a world record, but certainly worth the effort – especially considering the table qualities of the pompano.

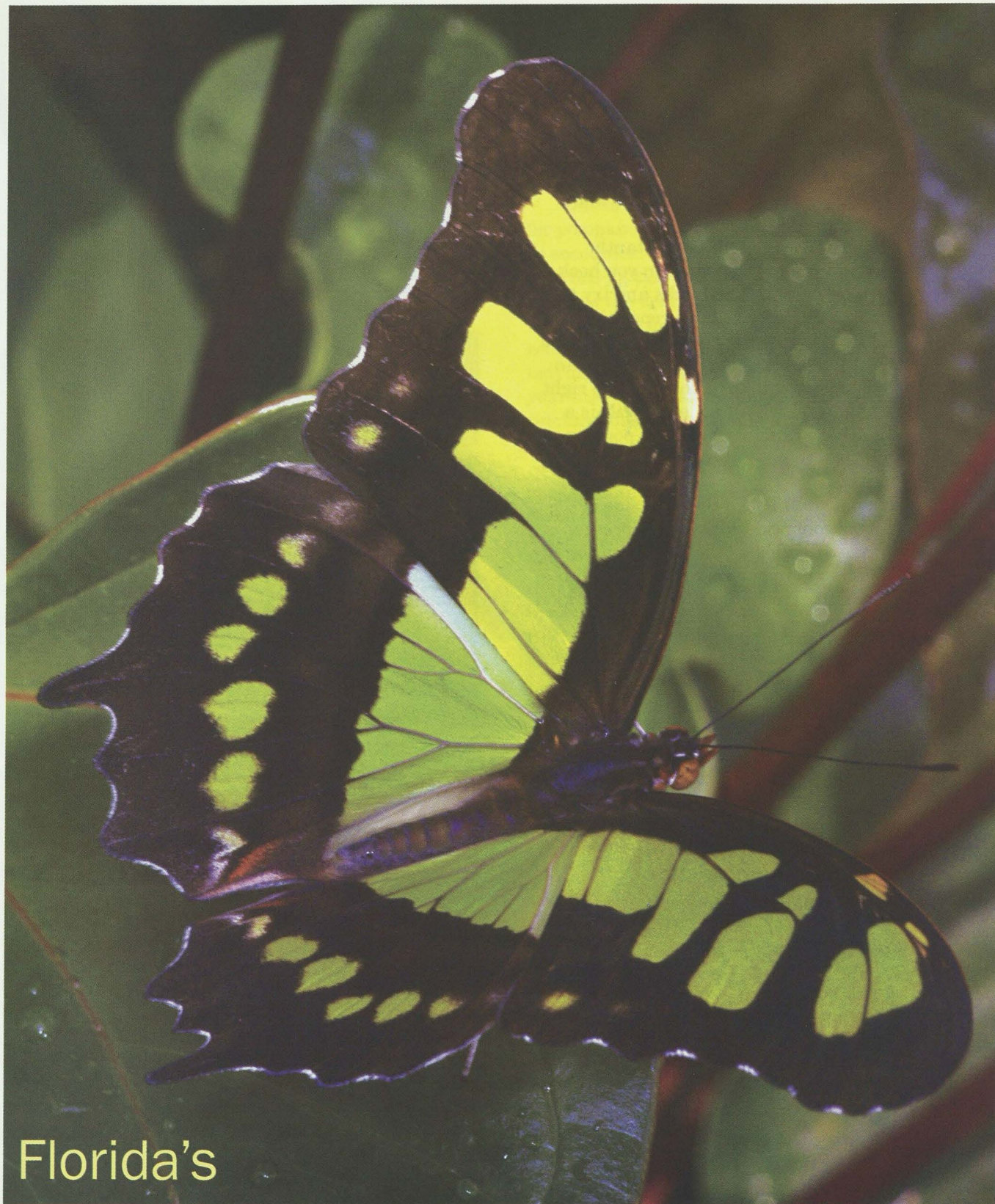
A few days later, I tried the same flat again with my fishing buddy Gabe from Brooklyn, NY. The bay was flat as a pancake in the early morning, so we took my 17-foot skiff. The Skyway is only a 12-mile run from my lift on the Little Manatee River, and during the early morning hours of the summer months, wind and weather do not present much of a problem as long as you keep an eye on your surroundings. If a thunderhead pops up and the air temperature drops, it's time to run for home.

This day we had an incoming tide instead of the preferred outgoing. We only caught a couple of pompano, but we also caught some ladyfish, jacks, trout, a small cobia, a bonnethead shark and a remora – all on the same little pompano jig. I also had one jig cut off, presumably by a Spanish mackerel, but it could have been a shark. No matter what I think the jig looks like, it seems lots of species think it looks good to eat, so I always have a good supply of the little jigs on hand in a variety of sizes and colors.

Drifting a flat, casting artificials to great-tasting fish during the doldrums of summer, is my idea of a great day in Florida, whether the fish bite or not. **FW**

Capt. Fred Everson is a full-time fisherman working out of Ruskin. He's been fishing, writing and taking photographs for more than 25 years.





Florida's

other winged wonders

By Jaret Daniels and Anne Glick ~ Photographs by Jaret Daniels

Birds are not the only winged animals that capture our attention. Floridians are rapidly discovering the excitement of butterfly watching. Like birding, butterfly watching is a fun and simple way to explore wild Florida and a great outdoor activity for the whole family. Few other forms of wildlife can be as easily observed as butterflies. These colorful insects occur in almost any location from back yards and city parks to roadsides and natural areas. In fact, many species can be attracted easily to home or schoolyard gardens, making daily observations a snap.

More than 765 species of butterflies occur in North America, north of Mexico. Florida is home to a total of 187 butterfly species, the most of any state east of the Mississippi River. Learning to identify even the most common of these butterflies may seem challenging at first. Even experienced naturalists may have difficulty separating a few of our very similar-looking butterflies. However, with a little help, proper identification does not have to be frustrating.

Don't expect to find 100 different species on your first day in the field. Take things slowly and, most importantly, have fun. You will quickly realize Florida is indeed the ideal environment for butterfly enthusiasts. In addition to year-round sunshine and mild temperatures, the state offers a wonderful combination of common butterflies, unique species found nowhere else and the possibility of encountering a rare tropical stray.

Butterfly viewing is inexpensive and a great way to spend time outside with family and friends.

Know where to look

Before you can watch or identify butterflies, you must find them. This is not as difficult as it may seem. Butterflies occur



Above: The Cassius blue butterfly is quite small – just about the size of a person's thumbnail. **Facing page:** The malachite, a recent colonist, is the only butterfly in Florida to have green on its wings.

throughout the state. They inhabit the natural habitats Florida has to offer – from the dense tropical hardwood hammocks of the Florida Keys to the dry sandhills of the Panhandle. The best place to begin is in your own yard, then try a nearby park, natural area or botanical garden. Chances are, these sites have a fair number of butterflies. Closely watching common or frequently encountered butterflies is a great way to practice. It helps you fine-tune observational skills while quickly becoming familiar with many local species.

Flowers: Most butterflies are attracted to colorful flowers. They rely on the sugar-rich nectar for food. Even small patches of blooming plants can be a magnet for butterflies concentrating activity in a single area.

Other attractants: Some butterflies rarely or never visit

flowers. They feed on other types of food. Species such as the question mark, hackberry, malachite and the southern pearly-eye are attracted to rotting fruit, animal dung, dead animal remains or tree sap.

Moist soil: Many butterflies gather at mud puddles or stream banks to drink water and take in various nutrients like salts and minerals.

Corridors: Butterflies are mobile. Forest trails, waterways, woodland edges and power line cuts can be natural movement corridors. Adults may use these flyways for local movements, long distance migration, to seek food or to locate mates.

Larval food (host) plants: Butterflies tend to be found near the plants on which their larvae (caterpillars) feed. In fact, the best way to find many species is to first track down patches of

larval host plants. Some butterfly watchers carry a field guide to help identify local plants.

Know when to look

When to look is just as important as where to look. Luckily for

butterfly watchers, there is no need for annoying alarm clocks or early morning departures.

Unlike birds, butterflies are most active during the day between 10 a.m. and 5 p.m. Warm, sunny field days without

strong winds are the most rewarding.

Butterflies occur throughout the year in Florida. Even on warm days in the middle of winter, you can still find a few butterflies. This is particularly true in southern portions of the state. For Floridians, spring and fall are often the best times for butterfly viewing.

Summer conditions are good, but hot daytime temperatures, frequent afternoon rain showers and a reduced number of wildflowers can reduce butterfly activity.

Know how to look

Approach slowly and cautiously. Butterflies have good eyesight and are easily startled by quick movements.

Approach from a low angle. If a butterfly is resting on a flower or perch at your eye level or above, it is often possible to get very close.

When one is perched on low vegetation, you should approach from as close to its level as possible. Butterflies are most wary of potential predators attacking from above.

Watch out for your shadow. Quick changes in light may signal danger, such as an approaching predator, and scare butterflies away.

Take advantage of opportunities. Butterflies are easier to observe when feeding at flowers or laying eggs.

Identifying butterflies in the field

Now that you know how to find and observe butterflies, the next step is correctly identifying them. By using a few simple clues, you can learn the identity of an unknown butterfly. And, as your butterfly-watching skills increase, recognizing these clues will become second nature.

Size: One of the first and most obvious characteristics to note when you see a butterfly is





Above: The white m hairstreak was named for the thin jagged white line that forms the letter M on its hind wings. **Facing page:** The eastern black swallowtail is a common butterfly found in fields, vacant lots, farmland, backyards and along roadsides.

its size. Although field guides often list wingspan for each species, such numbers are generally of little use in the field. It is easier to think of butterflies as small, medium or large.

Wing color and pattern: Butterflies come in a wide variety of colors and patterns. These distinctive wing features are the most valuable field marks and can be used to quickly identify different butterfly species. As you get started, stick with the basics. First, notice its overall ground color. Is the butterfly, for example, primarily yellow, black or white? Then try to spot any major wing patterns. Does the butterfly have distinct stripes, bands or eye spots? Finally, note the color, size and position of major markings and whether they occur on the upper surface (dorsal) or lower surface (ventral) of the wings.

Wing shape: The shape or silhouette of a butterfly's wings also provides a valuable clue to its identity. Even if you can't dis-

cern any markings, wing shape will help you narrow down the family to which it belongs.

Flight pattern and behavior: Butterflies are active creatures. The way they fly, feed or even rest often differs a great deal among species. Thus flight pattern becomes a good identification clue. Does the butterfly flutter slowly with a weak, relaxed motion or whiz past with a strong, rapid flight? Does it fly low to the ground or soar far overhead? Does the butterfly bob up and down or periodically glide following a series of quick wing beats?

Range: Many butterfly species are found only in certain regions of the state. Before making a wild guess, consult a field guide range map and always start with the most probable identification.

Keep track of what you see

Recording your field observations in a notebook will add to your enjoyment. Watch the butterfly

as long as possible. Is it feeding, laying eggs, interacting with other butterflies or just passing through? Record your observations. Notes about a butterfly's size, color, behavior, field marks, date of observation and specific location may be helpful for identification at a later time. **FW**

Jaret Daniels is IFAS assistant professor of entomology and assistant director for research for the Florida Museum of Natural History's McGuire Center for Lepidoptera and Biodiversity at the University of Florida in Gainesville. He is an avid gardener and nature photographer.

Anne Glick has enjoyed wildlife viewing and nature photography from an early age. She is the wildlife viewing section leader for the FWC's Office of Recreation Services.

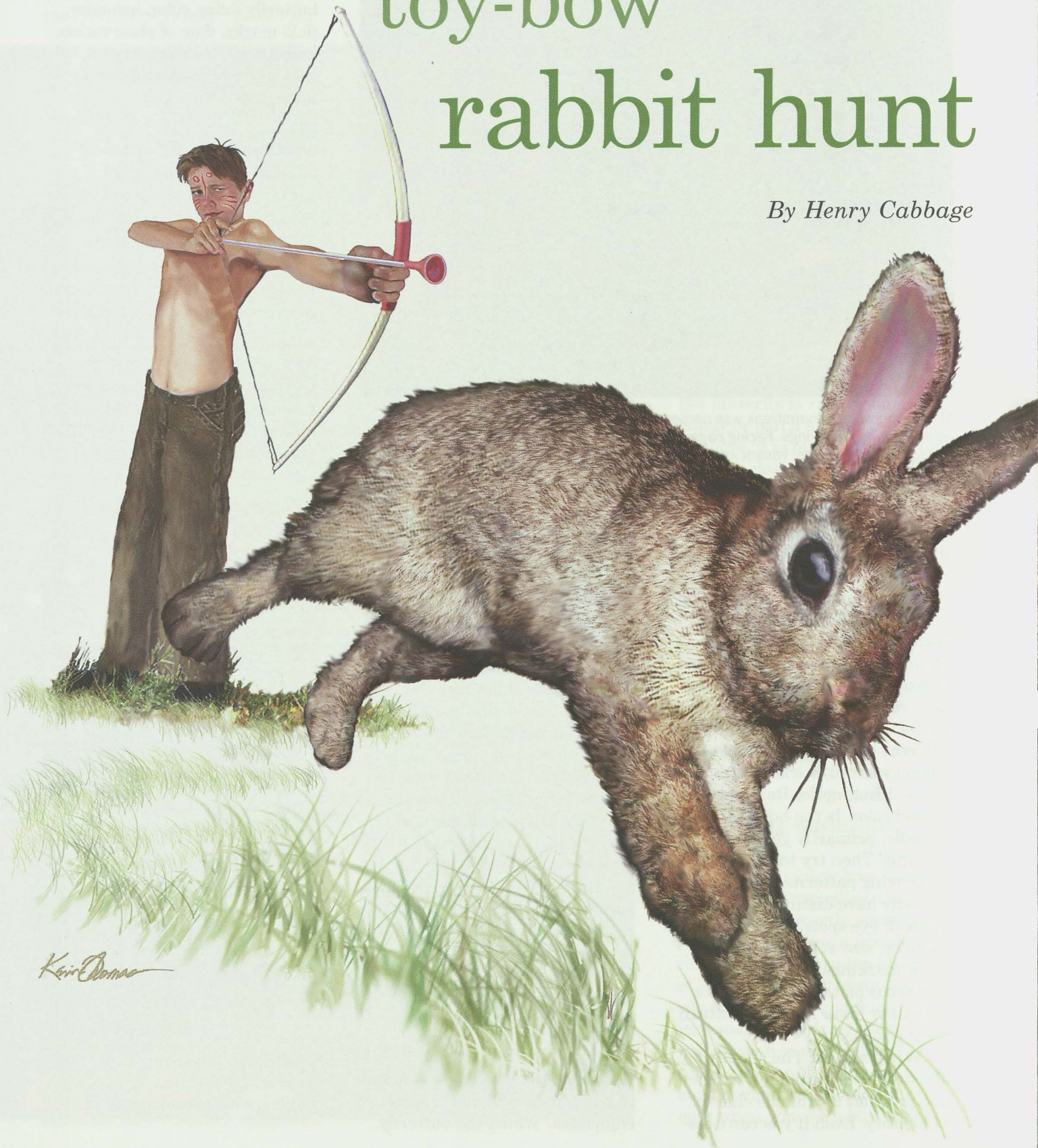
For more information on butterflies and butterfly viewing:



Available through
www.MyFWC.com
 and www.ifasbooks.ufl.edu.

The great toy-bow rabbit hunt

By Henry Cabbage



Kevin Donnan

When I was a boy, many years ago, behind our house in Pensacola was a 40-acre opportunity for unbridled adventure. It was an open field, surrounded by brush and trees. That was where my friends and I explored, discovered lost artifacts (mostly old soft drink bottles and one soldier's steel helmet), built a secret hideout or, "fort" as we called it, and frequently encountered wild animals – horned toads, quail, squirrels and rabbits.

We captured and released countless horned toads and one rabbit over the course of one summer. Our rabbit trap consisted of a wooden box with one end held up by a stick. The stick was attached with string to a chunk of cabbage. It's amazing that it worked, but it did. Of course, the young rabbit escaped the instant I lifted the box to retrieve the animal, but our success at capturing the rabbit generated a story we retold many times to people who always seemed to roll their eyes to signal their disbelief.

Then, came the time my birthday rolled around and my presents included a toy bow with a couple of arrows with rubber stoppers for arrowheads.

As if by magic, my transformation was instantaneous. I became a hunter like the native tribesmen who, no doubt, had stalked game in that very spot a century before me.

Like all great sportsmen, I honed my hunting skills by spitting into the cup of the stopper and shooting at the walls, windows, mirrors and any other flat surface where the stopper might stick. It seems to me I may have chased my little sister around the yard a couple of times with the toy bow and arrow, but "I was just kidding around," I lied when my father ordered a halt to my little escapade.

"Well, I'm not kidding around," Dad growled. At such breaches of conduct, my father routinely removed his belt, formed it into a ring with the buckle and end of the belt in one hand and the opposing side of the ring in the other. When he yanked his hands apart, the belt snapped with a sound more terrifying than the crack of a bull whip.

I regained possession of my hunting bow the following day and set out to bag a rabbit from the open field. There was a pile of discarded tires back there, and I had seen rabbits scrambling in and out of them from time to time. I figured that would be a good spot to hunt.

I daydreamed about how I would heroically amble back to the house with the rabbit slung over my shoulder, not to mention how much fun it was going to be to chase my little sister around the yard with a handful of rabbit guts.

Oh, one more thing. I decided the situation required war paint. I'd seen cowboy movies, and the people shooting bows in them always seemed to be wearing war paint.

I found a tube of my mother's lipstick and applied more lines and circles and other designs to my face than was necessary. Then, I removed my shirt and took to the field in search of game.

I thought briefly about the fact that I didn't really know how to clean a rabbit, but then I remembered all the times my mother had said "There's more

than one way to skin a rabbit," when she was figuring out how to solve a problem. That was enough to put me at ease. She probably knew lots of ways to skin a rabbit.

I daydreamed about how I would heroically amble back to the house with the rabbit slung over my shoulder, not to mention how much fun it was going to be to chase my little sister around the yard with a handful of rabbit guts. Little sisters endure much from the antics of older brothers. I figured that was what they were for.

My head was still in the clouds when I approached the pile of tires and the tall grass ahead of me seemed to explode. A small, brown rabbit raced down a path straight ahead of me, and with reflexes like a steel trap, I drew back my arrow with the rubber stopper arrowhead, took aim and released the bow string.

Zip!

I hit him. Believe it or not I hit him right in the right hind foot.

He was a tough one, though. The rubber stopper arrowhead failed to penetrate, and the animal scampered away without shedding a drop of blood.

Today, and possibly even back then, harassing wildlife is against the law, and this hunt may be considered a borderline violation since I was ill-equipped to do much more than merely annoy wild rabbits. To me, though, it was an honest-to-goodness rabbit hunt.

Imagination was a key element of being a kid back then, and nature offered boundless opportunities to unleash it. It still does, but those opportunities lie dormant, displaced by electronic toys.

Somehow, I think, we have to find a way to introduce today's children to nature again. They are missing so much. **FW**

High on kites

By Sandy Beck



SANDY BECK

A Mississippi kite sailing, swooping and diving with the air currents without flapping a wing is a thrilling sight. But viewing opportunities are limited to the late spring and summer when these interesting creatures visit Florida.

WIn William Bartram's *Travels*, published in 1791, the naturalist wrote about "kite hawks" that were "swift of flight, sailing without flapping their wings... and feeding out of their claws... as they gently sail round and round."

Bartram's was probably the first written description that compared this bird's graceful movements to that of a kite floating on a breeze. Today, we know it by its common name, Mississippi kite or its more formal name *Ictinia mississippiensis*.

The bird was named for the place Alexander Wilson, the "father of American ornithology," happened to be when he first described the birds as they gobbled up swarms of cicadas over a Mississippi bayou. Bartram and Wilson were likely birding during the late spring or summer.

By mid-September, because of some ancient instinct and fewer daylight hours, these birds are on their way to South America. Not much is known about their life at the other end of their migratory route except that most winter south of Bolivia.

Following the sun

In the spring, flocks of hundreds or thousands of kites make the return trip overland along the Gulf of Mexico and Caribbean coasts, stopping off at bird "fast-food restaurants" – tree canopies – along the way.

After passing through Mexico, they continue to their summer breeding grounds by fanning out east from Texas along the Gulf Coast states and north to South Carolina. Others travel into the farmlands and riparian forests of the Southwest

and up along the Mississippi River to southern Illinois.

In April, Mississippi kites begin arriving in Florida. They settle in the Panhandle and the Big Bend eastward and southward to Levy and Marion counties.

The kite family – a paradigm of avian cooperation

Like most birds of prey, kites mate for life. By the time they arrive in Florida, Mississippi kites have already paired off. Courtship, copulation and nest building occur between early May and mid-June.

Nests are often reused. A resident of Havana, just north of Tallahassee, observed Mississippi kites returning to the same nest in a live oak tree in her back yard for the past seven years.

Although both birds participate in nest-building or refurbishing, the male does most of the work while the female appears to observe from the sidelines.

The result is a small, flimsy, shallow nest approximately 1 foot wide, lined with green leaves and Spanish moss and placed in a fork at the top and north or east side of a tall pine, or occasionally, hardwood tree. Such positioning provides some protection from storms, afternoon sun and predators.

Already impressed by his craftsmanship, the female is finally won over by gifts of crunchy insects.

Aggression and competition between nestlings is common in many raptor species. Stronger siblings jockey into position to get first dibs on groceries and even cannibalize weaker ones in lean times, but biologists have never recorded such behavior in Mississippi kites. In fact, these parents appear to feed the smaller nestling first. Perhaps it is plentiful insect supplies that

make sibling skirmishes and pushy behavior unnecessary.

Not only is sibling rivalry nonexistent, but occasionally yearling birds become “helpers-at-the-nest.” In his account of Mississippi kites in the Cornell Lab of Ornithology’s *Birds of North America Online*, James Parker wrote that he and others have observed helpers pitching in with nest construction, incubation, brooding and, most often, defending the young from predators.

The archenemy of adult kites and their nestlings is the great horned owl. Red-tailed hawks, crows, raccoons and fox squirrels also feed on nestlings.

In return for their efforts, the young helpers get valuable “wings-on” experience. Such cooperative breeding is found among some other avian species, including crows and red-cockaded woodpeckers, but is rare among raptors. Some observers assume the helper

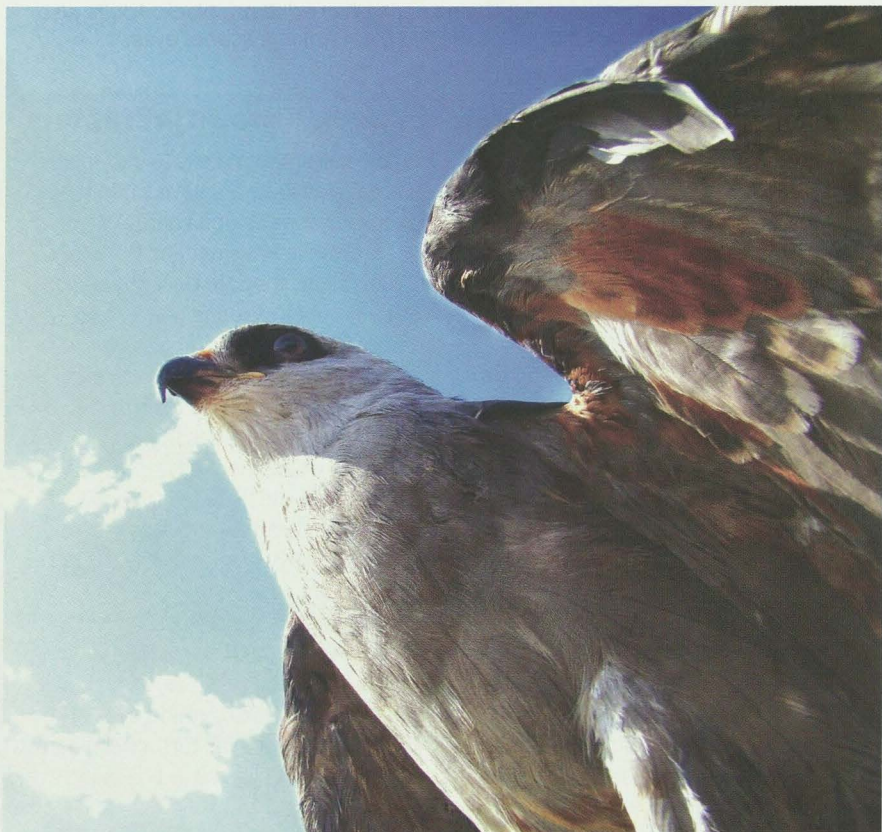
birds do not find mates until their second year.

Further evidence of kites’ social nature is their habit of sometimes communally nesting, roosting and even foraging. Large communal roosts of Mississippi kites have been observed in Kansas and Texas. One summer, hundreds of kites, including Mississippi and swallow-tailed, were seen gorging themselves on a great swarm of grasshoppers in Florida near the Suwannee River.

High as a kite

Mississippi kites are late-risers. They slowly stretch and preen until the mid-morning sun stirs the cold-blooded insects they relish. No sense in getting up before breakfast is ready.

Then, effortlessly gliding on set wings, kites ride the thermals, rich with insects, higher and higher until the soaring birds are but glints of sunlight.



SANDY BECK

By mid-September, Mississippi kites migrate to South America after nesting in Florida during the spring and summer. They begin returning to the state in April.

With graceful acrobatic maneuvers, they snatch airborne insects with one or both feet. They prune the insects' heads, wings and large legs, then transfer the body to their mouth, eating on the wing – further

GREG LAVATY

testament to their aerial skills. Closer to earth, these birds are not above plucking small vertebrates, including frogs, toads, lizards and small snakes, from tree tops and trunks. Occasionally, small birds and bats are taken as well as small terrestrial mammals and even box turtles, which they pursue by running and hopping, and

then pounce on them. They may also feast on carrion.

When the weather does not favor soaring, Mississippi kites will “hawk” from perches, making short flights to seize prey.

Conservation efforts

The Mississippi kite's ability to be flexible concerning both habitat and diet – unlike the selective snail kite – has kept its numbers relatively healthy in some parts of their range. However, their preference for insects makes them vulnerable in areas where crops are sprayed heavily.

Degradation of mature hardwood forest habitats also threatens some populations. And, of course, the birds face unknown perils from pesticides, deforestation and hunting in South America.

Sadly, Mississippi kites are already listed as endangered in Tennessee, Illinois and New Mexico and threatened in Arizona.

Above: Juvenile kites may be mistaken for hawks due to their brown, rufous and grey-streaked breasts and crowns. **Facing page:** In addition to light-gray heads and breasts, the cere (fleshy area at the base of the bill enclosing the nostrils), lores (area between the eye and the bill) and beak of an adult are black. Adults also have black circles around their striking, scarlet eyes.

How to pick out a Mississippi kite in a crowd (of raptors)

Floridians are fortunate to have four species of magnificent kites: the spectacular swallow-tailed kite, a large, black and white bird with a deeply forked tail, that also winters in the southern hemisphere; the endangered snail kite, a resident of freshwater systems south of Orlando, including the Everglades; the white-tailed kite, with a small established population in Miami-Dade, Highlands, Okeechobee and Broward counties; and the elegant Mississippi kite.

The slim, crow-sized Mississippi kite with its long, pointed wings is often mistaken for a falcon. However, its plumage is the key to correct identification: light-gray head, breast, abdomen, flanks and wing linings; long, dark gray flight feathers, except for secondaries, which are dorsally light gray; long, black and squarish to slightly notched tail; yellow legs. Sexes are similar, but the head

and nape of the male is usually paler. Female tail feathers have white areas along inner webs and shafts.

Juvenile kites are another story. From below, they are easily mistaken for a number of young hawks with similar brown, rufous and gray-streaked breasts and crowns. The back and wings are gray and white, with rufous highlights. The tail has large white areas on inner webs, merging into two or three white bands. In flight, wings appear more rounded than those of the adult. Adult plumage is attained by the fall of the second year.

If you can get a close-up look – not easy with this high-flying, high-nesting acrobat – black cere, lores and black beak, black circles around eyes and striking, scarlet eyes further distinguish an adult. Juveniles have brown eyes and a yellow cere.

The adult's most frequently heard call is a two-syllable *phew-phew*, a

high-pitched whistle lasting one to two seconds, with the accent on the beginning of the second syllable.

Usually two eggs are laid, one to four days apart. Incubation begins with the first egg and continues for the next 29-32 days. The female spends more time at the nest, but the male also incubates, giving the female occasional breaks to feed.

In June or July, the downy white nestlings hatch. As reported by James Parker, the first week they are quiet, unaggressive and generally weak. At 10 days, they can move about the nest and call excitedly when the adults approach. At 20 days, they can defend themselves. Between days 25-30, they graduate to “brancher,” exercising their wings by flapping on nearby tree limbs. And when they are 50 days old, they leave the nest and begin to prepare for their first trip to South America.

Some recommendations to safeguard populations reported by Parker include preserving tracts of mature forest where kites have nested and establishing buffers around nest areas; allowing large areas of second-growth to mature longer between timber-harvesting; establishing uncultivated or fallow fields near areas of kite-nesting; and restricting pesticide use in their nesting and foraging areas.

According to Henry Stevenson and Bruce Anderson, authors of *Bird Life of Florida*, the habitats of choice for Mississippi kites in Florida are grasslands or moist forests. In areas in and around Gainesville and Tallahassee, as in other parts of their range, kites have nested in

residential and urban areas.

City life presents a completely new set of problems for these kites which, like many birds, fiercely protect their young and defend their nest territory. *See sidebar, right.*

If we take action now to protect these remarkably beautiful birds, they will continue to grace our summer skies, sailing from cloud to cloud in their unique and breathtaking aerial ballet. **FW**

References: Parker, James W. 1999. Mississippi Kite (*Ictinia mississippiensis*). *The Birds of North America Online* (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the *Birds of North America Online*: bna.birds.cornell.edu/bna/species/402doi:10.2173/bna.402.

When birds dive at you

Or, what to do when birds stage a *coo d'état* during nesting season

What can you do to accommodate kite, hawk, owl or mockingbird neighbors, who, concerned about your close proximity to their babies, dive-bomb your family?

Dive-bombing birds can be a frightening experience, and a raptor with inch-long talons can be intimidating, but it's usually just a bluff to scare off intruders.

Accommodations that work

Make a swath of land around the nest off-limits until babies fledge (fly away). Last year, a mockingbird chose to build her nest in a tree next to the front entrance of the Tallahassee Police Department (TPD). The agitated mother swooped down and hit anyone who walked beneath her nest. TPD used yellow tape to detour employees and visitors to an entrance farther away from her tree. The accommodation worked. One month later, after the babies had grown and flown the coop, TPD was once again able to use both doors.

Carry an umbrella or wear a hat.

Wear eyes on the back of your head. No, really. Birds are discouraged from striking when they are being watched, so they usually swoop from behind. Download and print a large pair of eyes from www.wildclassroom.net/wildideas/swooping.eyes.pdf and tape it to the back of your hat.

In New Mexico, three-dimensional models of Mississippi kites are sometimes placed in old nests on golf courses to discourage re-nesting in these high-traffic areas.

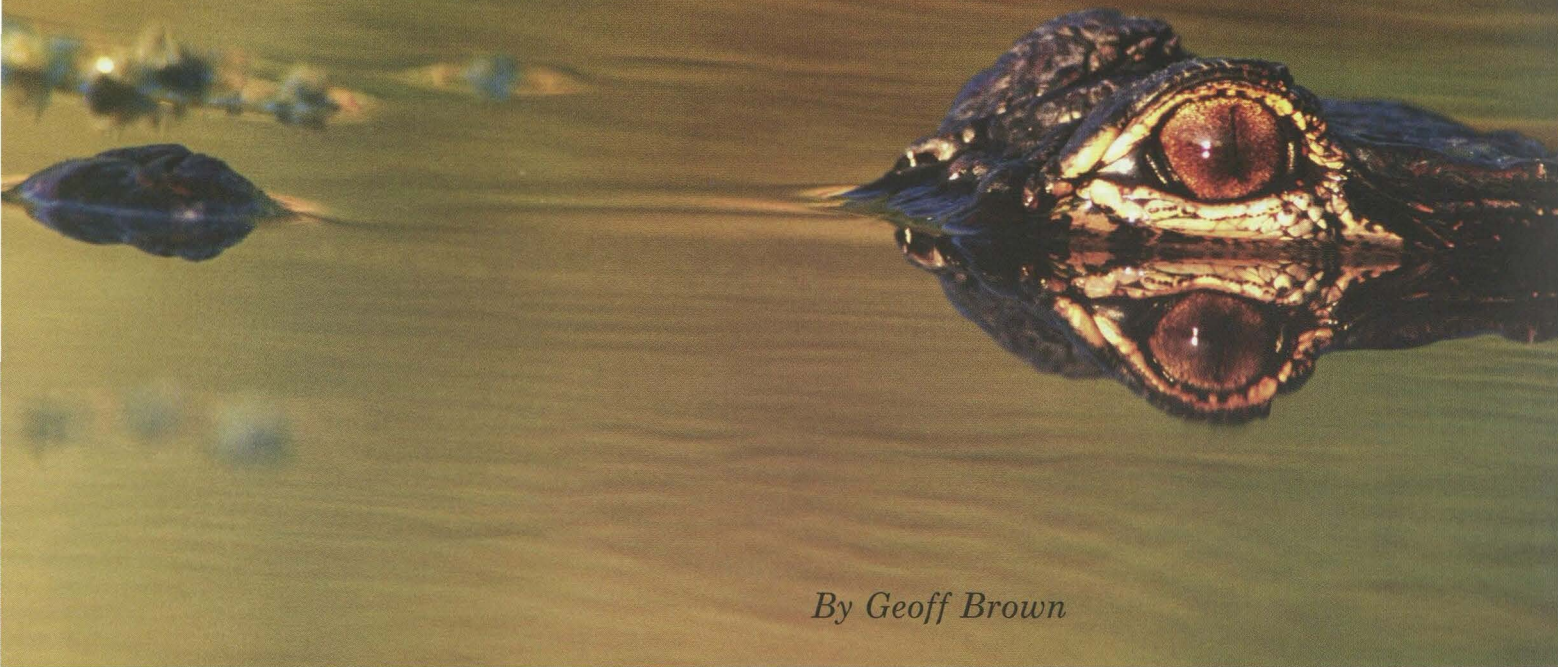
It is unlawful to kill, harass or possess a native, wild bird or to move an active nest without federal and state permits.

Remember, like us, these birds are doing their best to protect their young, and your accommodation is only a temporary thing. Just don't forget to wear your hat.



GREG LAVATY

Bright eyes in the night



By Geoff Brown



© BUDDY MANS / ALAMY

Ever wonder why some animals' eyes reflect back in the ray of your car's headlight or flashlight? This eerie effect is called eyeshine. It is the result of a special mirror-like film called tapetum lucidum (Latin for bright tapestry) that exists in the back of the eyes of certain animals. Light passing through the animal's eyes reflects back into the eye and increases the quantity of light caught by the retina, improving its ability to see in darkness. This feature enhances many predators' ability to capture their prey in the dark.

You may think that humans also have eyeshine based on the red-eye you see in family photographs, but we do not. In our case, the red glare is due to a reflection of the red blood vessels when human pupils have not had enough time to constrict during the flash of the camera. Eyeshine appears in cats, deer, dogs, alligators, bottle-nose dolphins, raccoons, spiders and other animals.

To have fun with eyeshine, take a walk with others outside in the dark with a flashlight to see what critters you may be able to spot. Hold the back end of your flashlight against your forehead. Shine the flashlight on a grassy wild area and let your eyes follow the beam of the light until you pick up bright sparkling light shining back at you. Move towards the shiny source slowly until you can identify the creature in front of you.

Eye-shine in alligators is red. Spider eyes shine pink. Frog eyes shine green. What color do you see shining back in the coolness of the night?

For more information on eyeshine, see MyFWC.com/viewing/withyourchild/eyeshine.htm and MyFWC.com/gators/facts.htm. **FW**

The amazing life of butterflies

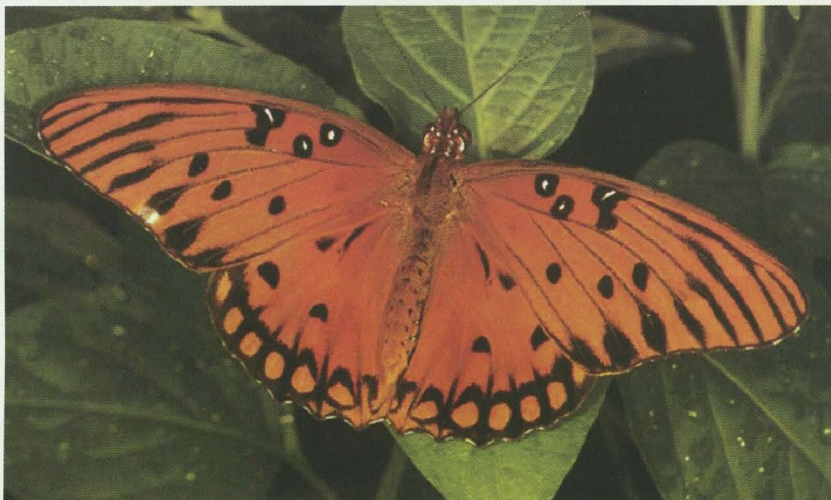
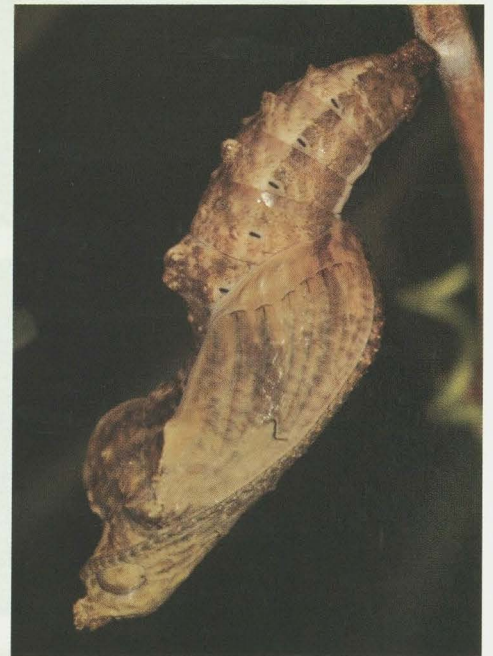
Article and photographs by Jaret Daniels

All butterflies go through a complex life cycle that consists of four distinct developmental stages: egg, larva (or caterpillar), pupa (or chrysalis) and adult.

No matter what their eventual size, all butterflies start out as tiny eggs. Female butterflies deposit their eggs on or near specific plants called host plants. In 1-2 weeks the eggs hatch to release tiny caterpillars which immediately begin feeding on the host plant. Caterpillars have very specific tastes. In fact, the larvae of each butterfly species feed only on certain, very specific, plant species. Consequently, butterfly larvae rarely become garden pests.



Butterfly larvae are highly efficient eating machines. It is their sole job to eat and grow, and they do both at astonishing rates. Unlike humans, butterfly larvae do not have internal skeletons. Instead, they wear their skeletons on the outside of their bodies. As a result, in order to grow, each larva must molt, or shed, its outer skin numerous times during its life. Each time it molts, the larva may change considerably in size and appearance.



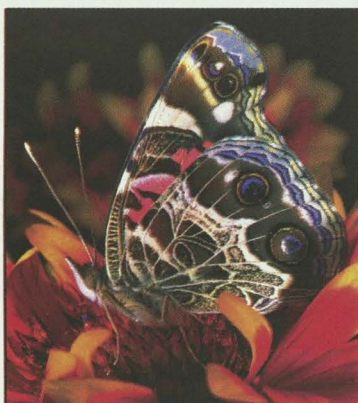
After 1-3 weeks of near-constant eating and growing, the caterpillar seeks a safe place to go through metamorphosis. Most butterfly larvae attach themselves to a branch, leaf or small twig with silk they produce themselves. After a short rest, the caterpillar transforms into a chrysalis.

Inside the chrysalis, an amazing metamorphosis occurs. Larval structures are broken down and totally reorganized to form an adult butterfly. When environmental conditions are right, in 1-3 weeks, the chrysalis splits open and a beautiful butterfly emerges.

At first, the butterfly's wings are small, wet and crumpled. Rapidly, though, they expand as the butterfly actively pumps blood through the veins in each wing. Within an hour or so, its wings are fully developed and the butterfly is ready to fly. *Photographs document the life cycle of the Gulf fritillary.*

Common butterflies of Florida

Photographs and descriptions courtesy of Jaret Daniels, University of Florida



American lady

(*Vanessa virginiensis*)

- Also called the American painted lady.
- Medium-sized orange butterfly with dark markings and a bold ventral pattern.
- Wingspan of 1.75-2.5 inches.
- Common throughout Florida.
- Three or more generations produced per year.
- Fond of open, disturbed areas.
- Adults have a low, erratic flight pattern and readily alight on or near the ground.



Zebra swallowtail

(*Eurytides marcellus*)

- Smaller swallowtail with bold black and white pattern and long hindwing tails.
- Wingspan 2.5-4 inches.
- Spring individuals are smaller, lighter and have shorter tails.
- Adults have a low and rapid flight pattern.
- Common throughout much of Florida, becoming less so in the extreme southern portions of the state.
- Adults are particularly fond of white flowers.



Spicebush swallowtail

(*Papilio troilus*)

- Large butterfly of woodlands, forested swamps and adjacent open sites.
- Black above with pale marginal



Checkered white

(*Pontia protodice*)

- Named for the black and white checkerboard pattern on the wings above.
- Females are darker and more heavily patterned than males.
- Common in the northern part of Florida, more sporadic southward.
- Inhabits a variety of dry, open areas including roadsides and waste sites.



Gulf fritillary

(*Agraulis vanillae*)

- Medium-sized with elongated bright-orange wings and black markings.
- Hindwings below have elongated silver spots.
- Wingspan 2.5-3.75 inches.
- Often confused with the monarch.
- Common throughout Florida.
- Regular garden visitor.



Mangrove skipper

(*Phocides pigmalion*)

- Arguably one of the most attractive Florida skippers.
- Large, robust brown skipper with blue iridescent scaling on wings and body that is particularly brilliant in young individuals.
- Locally common in coastal areas of Central and South Florida.
- Wingspan of 1.9-2.75 inches.
- Found in close association with red mangrove, its sole larval host.



Eastern tiger swallowtail

(*Papilio glaucus*)

- One of Florida's largest butterflies.
- Named for its bold yellow and black tiger-like pattern.
- Males are always yellow; females may either be yellow like the male or black (dark form).
- Dark form females mimic the unpalatable pipevine swallowtail.
- Common throughout much of Florida but local in extreme southern counties.



Giant swallowtail

(*Papilio cresphontes*)

- One of Florida's largest butterflies.
- Wingspan of 4-6 inches.
- Brown with crossing yellow bands on the wings above.
- Common throughout Florida.
- Swift flier but readily stops to feed at available flowers.
- Common garden visitor.

Dainty sulphur

(*Nathalis iole*)

- Smallest sulphur butterfly in North America.
- Wingspan of 0.75-1.25 inches.
- Elongated yellow wings with black markings.
- Ventral hindwing color and pattern vary by season.
- Common to abundant in southern part of the state, local and less frequent northward.
- Inhabits a variety of open, disturbed sites including roadsides and waste areas.



Common buckeye

(*Junonia coenia*)

- Medium-sized butterfly with bold, target-shaped eyespots.
- Fond of open, sunny areas.
- Wingspan of 1.6-2.75 inches.
- Ventral hindwing pattern and color vary by season.
- Has a fast, erratic flight and is wary of close approach.
- Adults readily land on bare ground and low vegetation.
- Common throughout Florida.

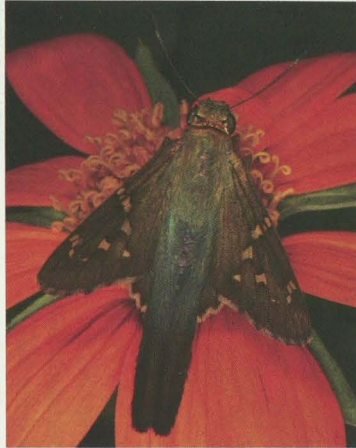


FLORIDA
Wildlife

Florida Fish and Wildlife
Conservation Commission

MyFWC.com

- on the hindwing.
- Wingspan of 3.5-5 inches.
- Common throughout much of Florida, becoming less so in southern portions of the state.
- Adults have a swift flight pattern but readily pause to feed at available flowers.
- Mimics unpalatable pipevine swallowtail.



Long-tailed skipper

(*Urbanus proteus*)

- Medium-sized brown skipper with long hindwing tails.
- Upper surface of body and wing bases have bright iridescent green-blue scaling.
- Wingspan of 1.5-2 inches.
- Common throughout Florida.
- Fond of open, disturbed areas with weedy vegetation.
- Regular garden visitor.
- Adults are migratory.



Southern skipperling

(*Capaeodes minimus*)

- The smallest skipper in the United States.
- Bright-orange with a distinctive pale ray through the ventral hindwing.
- Wingspan of 0.6-0.75 inches.
- Very short antennae.
- Inhabits a variety of open, grassy sites and adjacent weedy areas.
- Adults have a low, quick flight pattern and are easily overlooked.



American snout

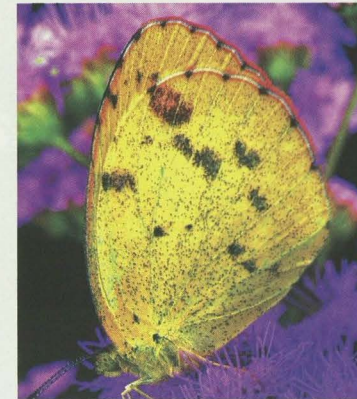
(*Libytheana carinenta*)

- Medium-sized brown butterfly with orange dorsal markings.
- Only member of this unique subfamily in North America.
- Named for its elongated and forward-pointing labial palps that look like a long nose.
- Wingspan of 1.3-2 inches.
- Adults rest with their wings tightly closed and resemble a dead leaf.
- Common throughout North Florida.

Queen

(*Danaus plexippus*)

- Large mahogany-colored butterfly with black markings.
- Bold adult color pattern warns predators of their unpalatability.
- Similar in appearance to monarch but darker and without black outlined veins on the wings above.
- Wingspan of 2.7-3.9 inches.
- Multiple generations are produced each year.
- Common in central and southern portions of the state, more local in northern counties.



Small sulphur

(*Eurema lisa*)

- Small, bright-yellow butterfly with black margins on the wings above.
- Some females are pale and appear almost white.
- Wingspan of 1.25-1.8 inches.
- Adults have a quick flight low to the ground.
- Common throughout Florida.
- Multiple generations are produced each year.



Red-banded hairstreak

(*Calycopis cecrops*)

- Small gray butterfly with bold red-orange band through the hindwing below.
- Wingspan of 0.9-1.25 inches.
- Common throughout Florida.
- Inhabits a wide range of sites including forest margins, swamps and shrubby, disturbed areas.



Orange-barred sulphur

(*Phoebis philea*)

- Large, extremely showy, yellow butterfly.
- Wingspan of 2.8-4 inches.
- Males have bold orange bars on the forewings above.
- Sexes are dimorphic vary by season.
- Adults have a strong, swift flight and are exceedingly fond of flowers.
- Common in central and southern portions of peninsular Florida, frequently strays northward.

Less common butterflies of Florida



Little wood satyr

(*Megisto cymela*)

- Medium-sized, brown with prominent yellow-ringed eyespots.
- Adults have a relaxed, bouncing flight pattern.
- Common in the northern part of the state.
- Inhabits rich deciduous woods and forested swamp margins.



Malachite

(*Siproeta stelenes*)

- Large, brown with somewhat translucent green markings.
- Wingspan of 3.3-4 inches.
- Arguably one of Florida's most attractive butterflies.
- Named after the carbonite mineral.
- A relatively recent colonist of the state, it was considered rare before the late 1960s.
- Locally common in extreme southern portions of Florida.
- Adults regularly feed on fermenting fruit, animal dung and other decaying matter.



Goatweed leafwing

(*Anaea andria*)

- Medium-sized with bright orange scaling above and a mottled-brown, leaf-like pattern on the wings below.
- Wingspan of 2.4-3.4 inches.
- Adults are swift fliers and extremely wary of close approach.
- Local and somewhat sporadic in northern Florida.
- Inhabits dry woodlands and scrub.



Atala

(*Eumaeus atala*)

- Large, tailless hairstreak.
- Endemic to Florida, almost extirpated from the state in the 1960s.
- Local in extreme southeastern portions of the state.
- Inhabits pine rocklands, hammock margins and a variety of landscaped areas.
- Adults have a somewhat slow, relaxed flight pattern.
- Larvae are gregarious and feed on coontie.
- Listed as a species of greatest conservation need by Florida's Comprehensive Wildlife Conservation Strategy.



Miami blue

(*Cyclargus thomasi bethunebakeri*)

- Small, blue butterfly endemic to Florida; additional subspecies occur in the Caribbean.
- Originally described from specimens collected near Miami.
- Once common but now one of our most critically imperiled butterflies.
- Can be observed at Bahia Honda State Park.
- Wingspan of 0.75-1.1 inches.
- Listed as endangered.



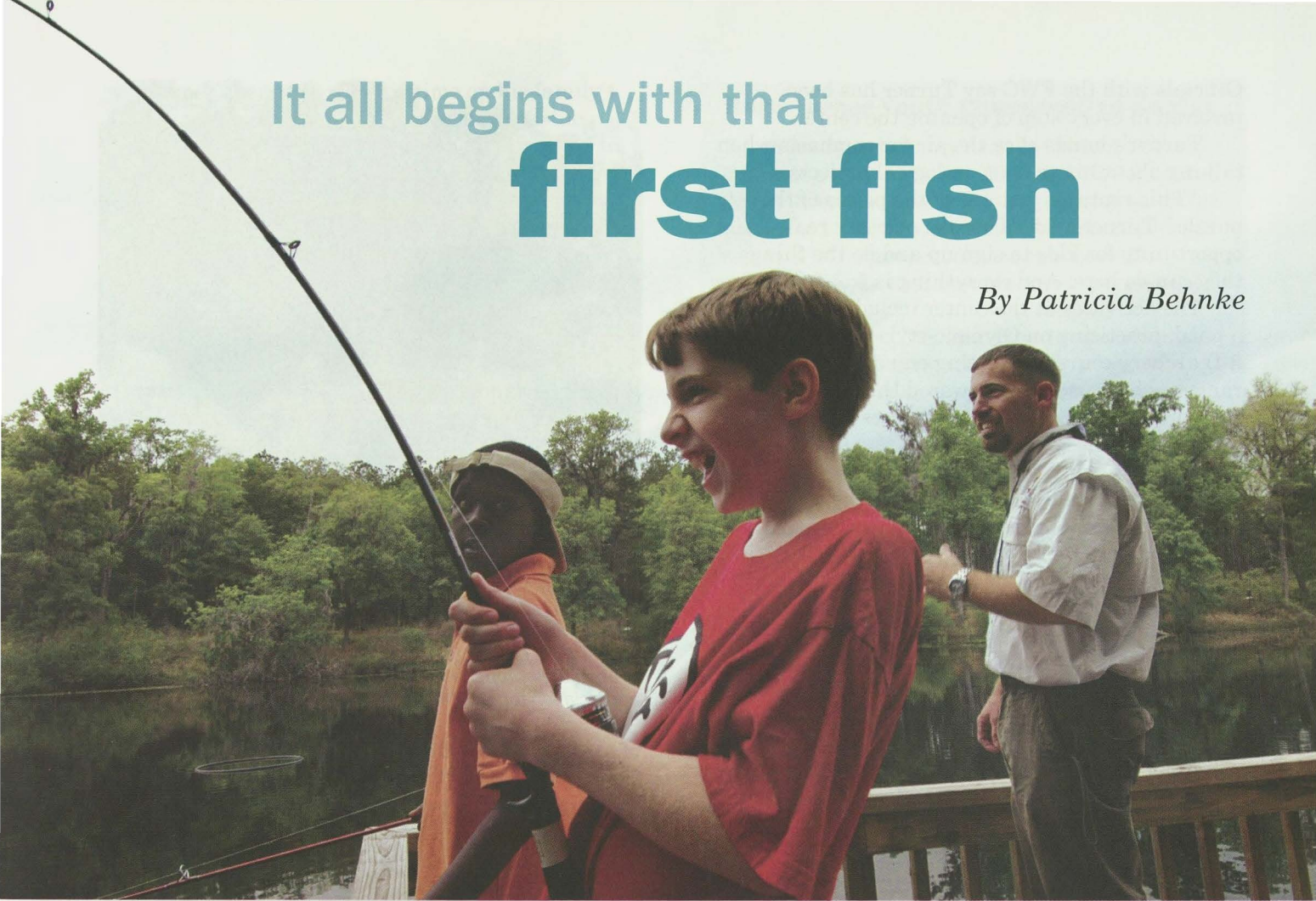
Frosted elfin

(*Callophrys irus*)

- Small brown butterfly with silvery scaling on the outer margin of the hindwing below.
- Wingspan of 0.9-1.25 inches.
- Rare and declining throughout much of its U.S. range; in Florida it is limited to only a few northern counties.
- Found in close association with its larval host, sundial lupine.
- Listed as a species of greatest conservation need by Florida's Comprehensive Wildlife Conservation Strategy.

It all begins with that **first fish**

By Patricia Behnke



Beau Turner teams up with the FWC to provide youngsters an opportunity to explore nature and learn outdoors skills.



At the FWC's Beau Turner Youth Conservation Center, youngsters discover outdoor activities can be more exciting than TV and video games.

TBeau Turner, the son of Ted Turner of CNN fame, fell prey to the lure of using a computer as a babysitter when his son was a toddler. He gave him a computer game and watched as the toddler's attention focused on the screen. The sight inspired Turner to work to bring children outdoors where they can see, smell, hear and touch the face of Mother Nature.

"TV and video games are not the right babysitter," Turner said. "Kids need to touch the soil and plant trees in that soil."

Turner has vowed to do all he can to provide kids with opportunities to explore nature and its treasure troves. He took a solid step toward this goal when he formed a partnership with the Florida Fish and Wildlife Conservation Commission (FWC) this year with the opening of the Beau Turner Youth Conservation Center. The center, the first of its kind in Florida, opened in March on 160 acres east of Tallahassee. Turner has leased the land to the FWC with the goal of developing a stewardship ethic among youths through programs designed to develop their outdoor skills. He hopes to instill in them an appreciation and knowledge of the longleaf pine ecosystem and wildlife management techniques.

Officials with the FWC say Turner has been involved in every step of opening the center.

Turner's hands slice the air for emphasis when talking about his various ecological projects.

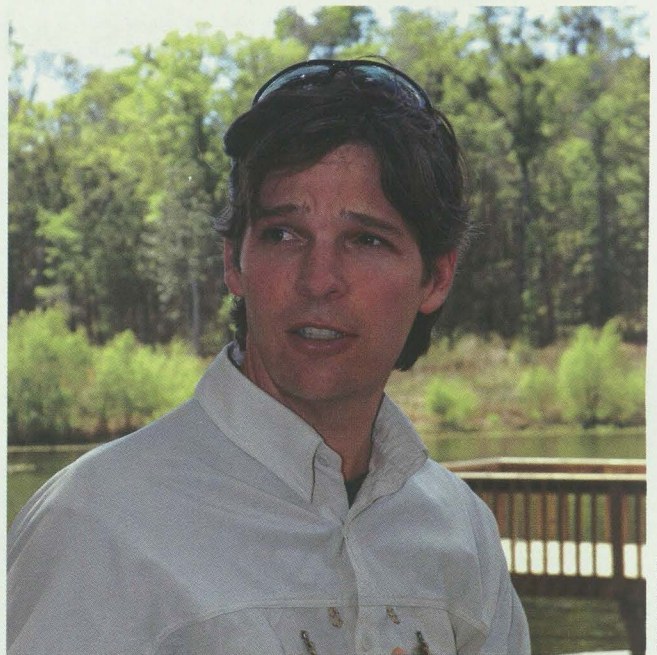
"This center is just one of the pieces of the puzzle," Turner said. "There is no other real opportunity for kids to sign up and do the things they can do here. And everything is free."

The activities at the center include fishing in a pond, practicing on Olympic-style archery and 3-D archery courses, shooting on rifle and shotgun ranges, which use solar-powered throwers and biodegradable targets, hiking nature trails and viewing wildlife.

Florida's youth conservation center serves as a model, Turner said. He plans to use the model to create others of its type on ranches owned by the Turners across the country and in South America. The Turner family is the largest private individual landowner in the United States, with nearly 2 million acres in its holdings. The younger Turner runs the land operations of the Turner Foundation, which is why the New York Times stated in 2000, "Arguably, Beau Turner is already the most influential citizen/environmentalist in the nation."

All of Ted's five children are involved in some way in the environment, but Beau works on a local level. He believes rural communities provide the perfect setting for making a difference in the life of a youth.

"My dad recently committed these lands to conservation after he dies," Turner said. "I don't know



TIM DONOVAN

Beau Turner challenges all landowners across the country to open their property to children, so they can learn an appreciation for nature.

of any other individual who has done so much for the environment."

Turner's first experiences with nature occurred at the Atlanta Country Club, when it was just a small, rural club. He and his brothers would run around the golf course fishing in the ponds and sometimes catching both fish and golf balls.

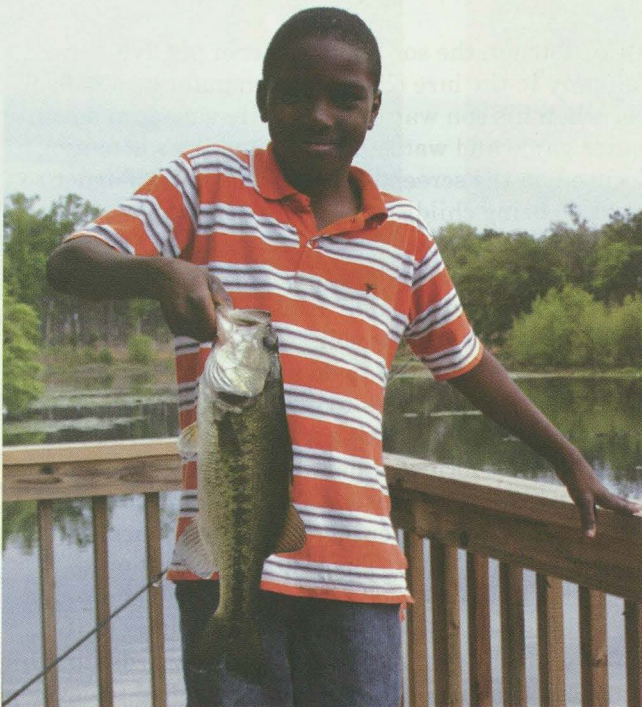
"We ran around outside to get the energy out," Turner said. "I do the same thing with my son today. I just get him outside and run him around playing games."

Turner looks up to some of this country's earliest environmentalists, such as John Muir, Teddy Roosevelt and Aldo Leopold. He talks about the philosophy of community and land in the style of Leopold, who said, "That land is a community is the basic concept of ecology, but that land is to be loved and respected is an extension of ethics."

"They say it takes a village, well, I'm just a part of that village," Turner said. "We have just got to get kids outside, and I'll do anything I can to facilitate that."

Doing anything includes opening 900 acres adjacent to the youth center for the FWC's Youth Hunting Program, which encourages landowners to share their land in order to preserve hunting traditions in Florida for future generations.

Turner believes that not helping kids enjoy the outdoors will bring devastating results. He challenges all landowners to do what he has done on whatever scale they can manage. Even if that means one farmer inviting one child out to the land to show him where food is grown.



TIM LEWIS

This young man caught a largemouth bass at the Beau Turner Youth Conservation Center during a recent event celebrating the opening of the center, east of Tallahassee.

Turner spends part of his time on his family's 25,000-acre plantation, Avalon, adjacent to the youth conservation center. There he has worked to bring back the native landscape by planting longleaf pines and wire grass and making a home for the red-cockaded woodpecker, a species of special concern. His green eyes sparkle when discussing the longleaf and the red-cockaded woodpecker that makes its home in the pines.

"If I can get just one kid to plant a longleaf pine in his yard, then I've left something," he said as he held out the slender long needle of a longleaf planted at the youth center. "This is a huge undertaking but it's nurturing the land back to its original state and creating biodiversity once again in the environment."

Just as Turner learned a deep love and appreciation for the outdoors as a child, he is instilling that love in his own child as well. But he hopes for more; he wants to show communities of children how to respect and love the land.

"It all begins with that first fish," Turner said. "That's where it began for me. I caught my first fish, a bream, at the age of 4. My dad helped me get the fish off the hook.

"Now you have to catch that second fish to continue, but it all begins with that first one." **FW**

Beau Turner Youth Conservation Center

The 160-acre Beau Turner Youth Conservation Center is located on U.S. 19 just north of U.S. 27 in Jefferson County. It features a stocked fishing pond, areas to hunt waterfowl, a dove field, state-of-the-art rifle and shotgun ranges, a 3-D archery course and solar-powered skeet-shooting facilities that throw biodegradable clay pigeons.

Parents may register their 12- to 16-year-old children for classes in gun safety, archery, fishing, shooting and other outdoor activities. These classes are free, and the FWC will provide all necessary equipment and materials.

The center also plans to hold youth hunts on an adjoining 900 acres through the FWC's Youth Hunting Program of Florida.

A class schedule and center opening times are being developed and will be posted online at MyFWC.com/BTYCC as soon as they are finalized. For more information about the center and classes, contact Kenny Barker, state coordinator, Youth Hunting Program of Florida at 850-251-0638.

Beau Turner helps a youngster remove a hook from a largemouth bass at a recent event at the FWC's Beau Turner Youth Conservation Center.



TIM LEWIS



2008

Florida Wildlife art contest

First Place

Pileated Woodpecker

John Brennan

This year, *Florida Wildlife Magazine* has reinstituted one of its most popular features from the 1990s. Due to popular demand, the annual art competition has returned. This year's winning artwork is of a pileated woodpecker, an acrylic-on-board painted by John Brennan of Lutz. His artwork graces this issue's cover and is being reproduced as signed and numbered prints, which will be used to raise funds for the Wildlife Foundation of Florida.

The second-place award went to Tom Krause of Nokomis for his acrylic-on-board painting of a loggerhead hatchling crawling to the ocean. Third place was a tie between Michael Welch of Panama City with his oil rendition of a Florida white-tailed deer and John Brennan's acrylic-on-board cardinal.

The quality of this year's entries was so high, the judges decided to award three honorable mentions. Bobbi Twohey of Sewall's Point (oil painting of a pelican floating on water), Joan Garcia of Lutz (oil-on-canvas of a laughing gull preparing to land) and Tom Krause (acrylic-on-board of a Florida spiny lobster) received honorable mentions.

Almost all the artists were from Florida, which was not a contest requirement. Almost two-thirds of the entries featured various bird species and only a very few featured reptiles, fish or water mammals.

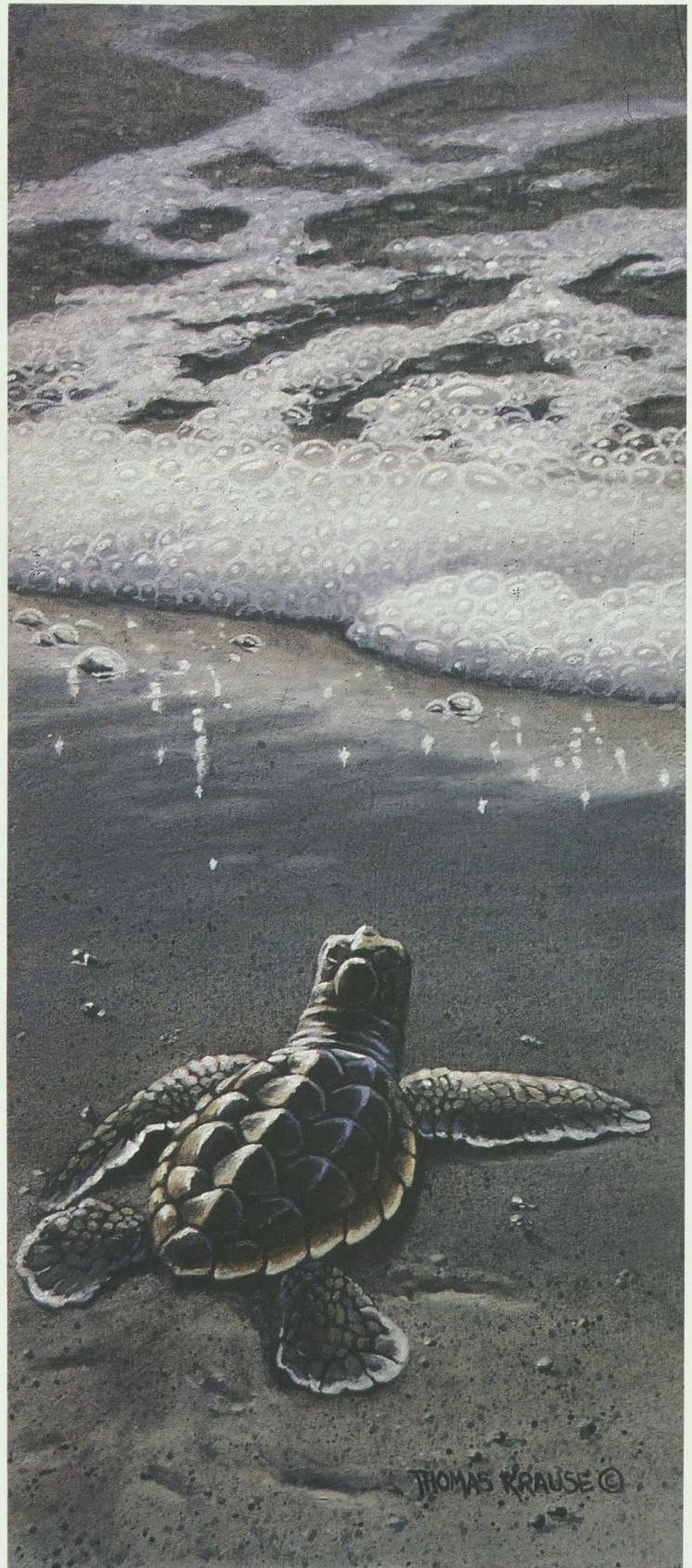
The magazine will sponsor another art contest, beginning July 1 and ending February 27, 2009. Rules and entry form can be found on the magazine's Web site, FloridaWildlifeMagazine.com. **FW**

Second Place

Off I Go

Tom Krause

Loggerhead sea turtle hatchling



Honorable Mention
Florida Spiny Lobster
Tom Krause



Third Place (tie)
Cardinal
John Brennan

Honorable Mention
Sunday's Pelican
Bobbi M. Twohey



Third Place (tie)

Star Buck

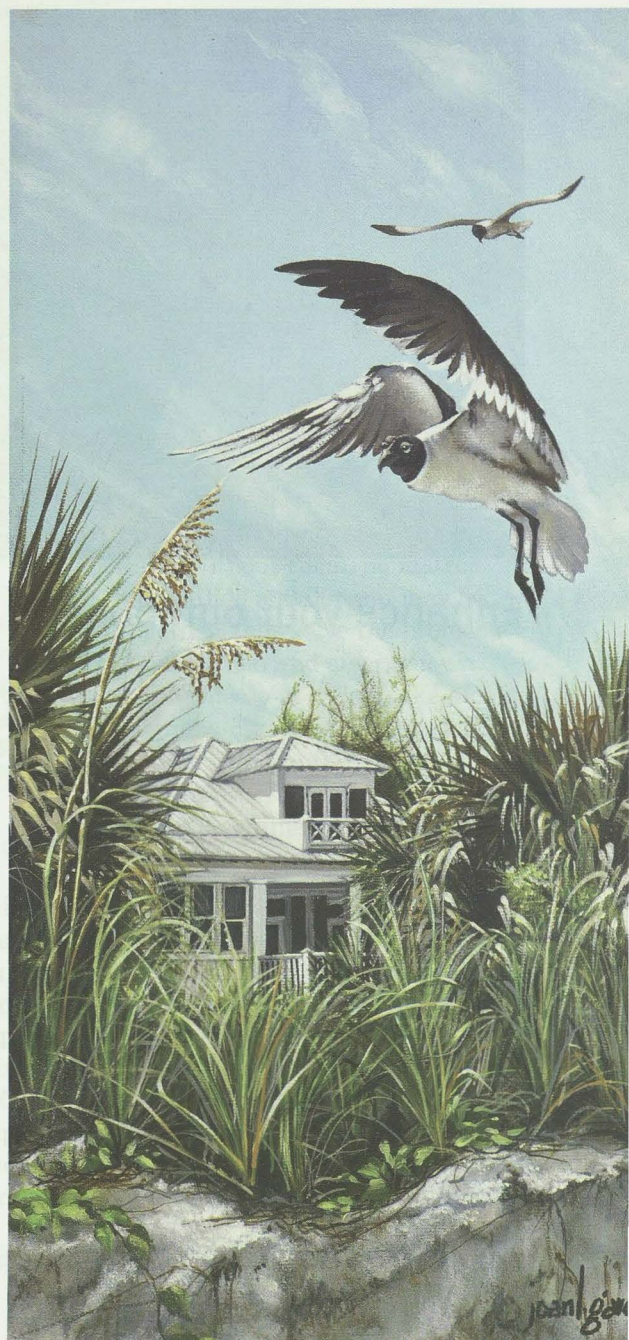
Michael Welch

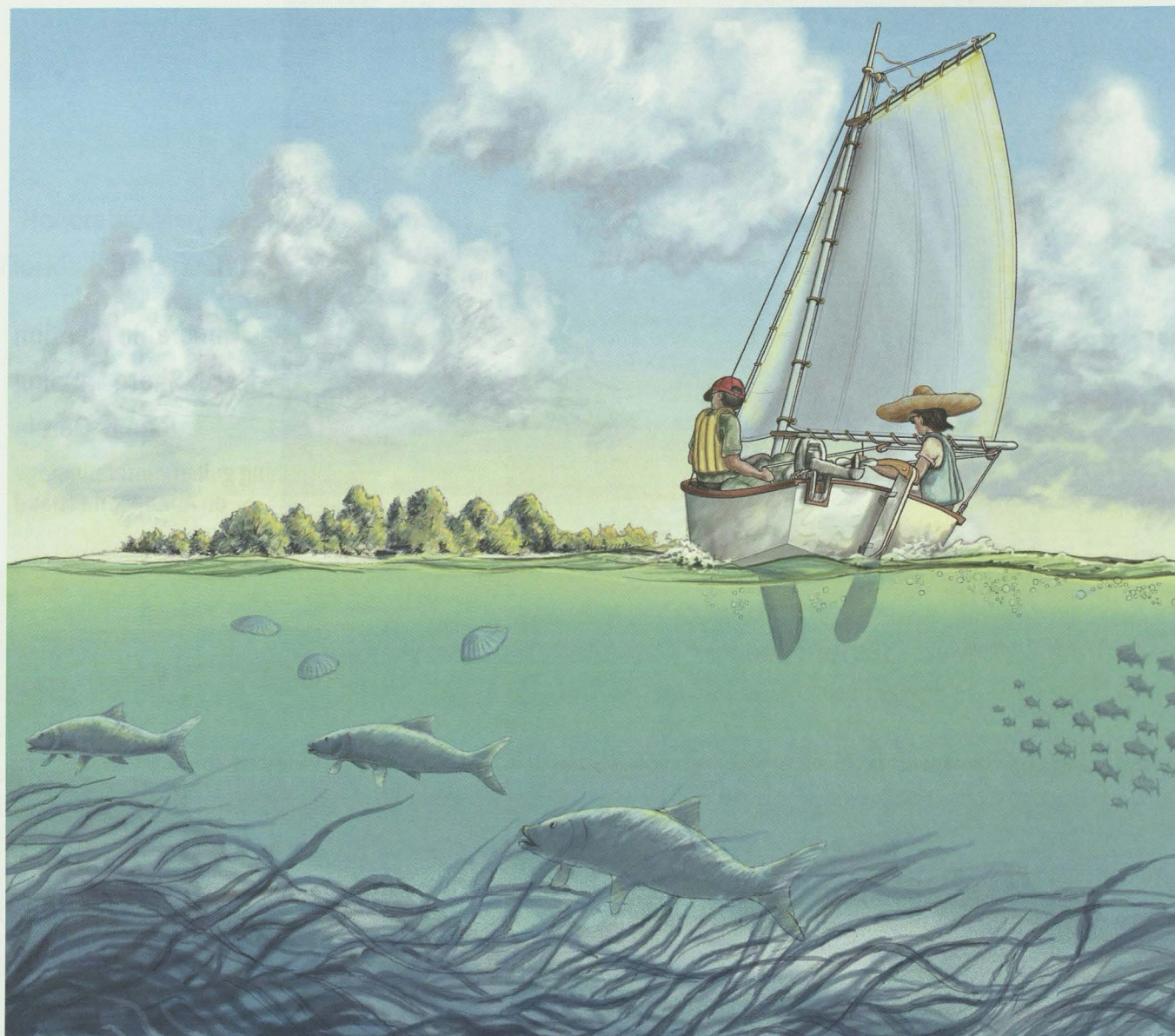
Honorable Mention

North Shore Landing

Joan L. Garcia

Laughing gull in winter plumage
on Anna Maria Island





Enhance your outdoor and boating skills...

Go dinghy camping

By Henry Cordova ~ Illustrations by Fritz Seegers

Every backpacker faces a dilemma – does the usefulness of an object make up for the fact it has to be carried on your back? While each item adds comfort and safety, it also increases the load. A wilderness experience implies giving up some comforts and taking some risks. But if a camping expedition becomes a

minimalist struggle for survival, it may be abandoned or turned into a mechanically-assisted, air-conditioned trip in a lavishly equipped vehicle that has little to do with experiencing the outdoors.

My compromise is dinghy camping. I can carry more on a small boat than I can lift, so I can bring along additional

conveniences and supplies to make life easier in the wilderness. But I'm still camping.

I loosely define a dinghy as a boat too small to sleep on. It is the nautical equivalent of a two-seater roadster or a motorcycle with a sidecar. A dinghy can carry a few people at most, but it can go places not accessible by

foot or land vehicle. It might be powered by oar, sail, motor or any combination. It is any boat that can take you to a wilderness campsite but is still small enough to pull on the beach or anchor in shallow water. Under this definition, even a canoe qualifies as a dinghy.

Somewhere near you is a body of water suitable for this type boat, whether it's a reservoir, river, lake or the sea. Of course, away from inland waters, your boat must have some measure of seaworthiness. Remember, you will be on your own, and as in any wilderness setting, things can go wrong, no matter how well prepared you are. Be careful and use common sense.

This article was based on my experiences with my boat and in home waters, but I believe a lot of what I cover can be applied to most situations.

My dinghy is a San Francisco Pelican, a 12-foot, flat-bottomed, centerboard cat-rigged lugger, originally designed for use on windy San Francisco Bay. It is a small boat but ruggedly built, very roomy and capable of carrying four plus camping gear for a weekend or carrying two and supplies for a week. It is seaworthy enough that I can travel considerable distances offshore or along the coast. There is no auxiliary outboard, so canoe paddles provide emergency propulsion.

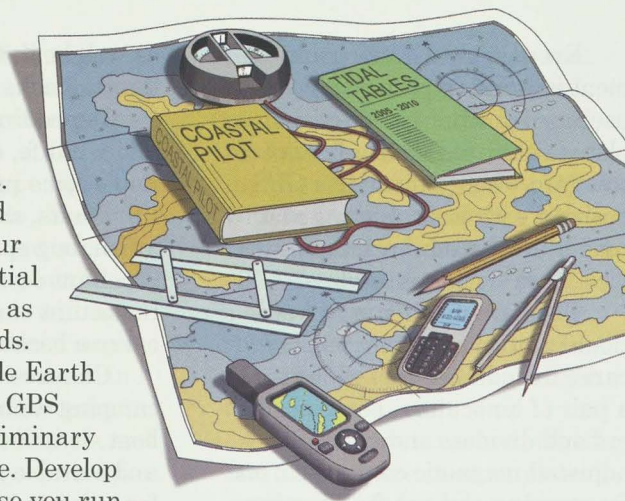
I sail my Pelican on the Florida Gulf Coast where bays, inlets, islands and sand bars provide an infinite variety of secluded spots inaccessible by any other means. And, in the spirit of the true pocket cruiser, this vessel can be hitched behind a compact car and trailered to the water's edge. In this era of limited and diminishing facilities for recreational boaters and high fuel costs, this can make a difference.

When looking for potential campsites, consult the charts for

your area and select spots that can be reached easily from where you launch your boat. Study the waters and the approaches to your destination for potential harbors and hazards as well as navigation aids. In many cases, Google Earth software can provide GPS waypoints and a preliminary aerial reconnaissance. Develop alternate plans in case you run into trouble or even if you just change your mind – always have a Plan B. Nautical charts can suggest worthwhile destinations, too. A remote Indian mound and an offshore freshwater spring were both clearly marked on the charts of my home cruising area; both were fascinating spots to visit and pretty much unknown to most boaters in the area.

Contact the authorities about camping regulations on public lands and always respect others' property rights. Keep in mind your boat's strengths and weaknesses. For example, I know I can take my Pelican into shallow water where deeper-draft vessels can not follow. This often gets me choice campsites all to myself. At the same time, I avoid areas that are too well-sheltered and far from open water and the sea breezes I rely upon. My boat is clumsy under oars, so I stay away from places where I am likely to be becalmed or neaped (forced aground for long periods by an unusual combination of high and low tides). My mast is low, but there are some bridges I can not clear without unstepping it.

In any boat, knowledge of seasonal weather patterns is as critical as short-term forecasts. Make sure you are familiar with your marine environment and the rising and setting times of the sun and phases of the moon – these facts can save your life. Buy up-to-date charts and have



access to almanacs, tide and current tables, coast pilots, light lists and other publications – and learn how to use them. Your local marine store can provide you with critical information as can the Internet. There are numerous recreational boating guides and regional sailing directions on the market. You'll find planning your trips almost as much fun as taking them!

Hand-held GPS and cell phones are recent inventions, and travelers got along without them for thousands of years, but today, they are vital safety gear. They should not be completely relied on, as they are mechanical and prone to failure, but it would be irresponsible to go out on the water without them, no matter how skilled a sailor you may be. Together, they solve the problems of navigation and emergency communications. Also, take along a battery-operated portable radio for essential weather forecasts.

However, there is no excuse for not learning the fundamentals of small boat navigation. Without some knowledge of piloting, dead reckoning, basic compass and chart work, plus understanding of the rules of the "road" and navigation aids, you may become overly reliant on a piece of equipment you do not fully understand. If you lose it or it malfunctions, you may have no clue how to find your way home.

Even when all your equipment is working perfectly, it is useless if you don't have complete faith in it. The confidence you gain when you verify a GPS position with basic piloting and coastal navigation techniques (or vice-versa) is priceless.

The bare minimum of traditional navigation gear you should carry includes a chart of the area, a pair of binoculars, parallel rulers and dividers and two well-adjusted magnetic compasses, one for steering and one for shooting bearings. If you don't know what "shooting a bearing" is or how to plot a fix on a chart or lay out a dead reckoning track, you're not yet ready to solo. Read up on it or find someone to teach you; it's a lot easier than you think.

Now, you know where you're going, you know what you're doing and you have all the equipment you need for safe operation of your craft. You have fuel, tools and spare parts, and your boat has all the required safety equipment. So what do you take with you? Food and water, of course, at least twice as much as you think you'll need, and plenty of dry clothing and bedding. Always take more of everything than you need – you might be unable to return when you want to – and pack everything in waterproof containers. Make sure the containers are light enough to float and don't fill your water jugs all the way to the top.

Being prepared sounds like common sense, but I've rescued more than one family stranded on a barrier island or an isolated beach because of a dead motor. After an overnight stay, they were in bad shape: hungry, thirsty, shivering with cold, covered with mosquito bites and terribly sunburned. It is not a pretty sight, and for young children it could prove fatal. Even though you may be within sight of civilization, without equipment and an operational boat you might

as well be in the Amazon or the Outback.

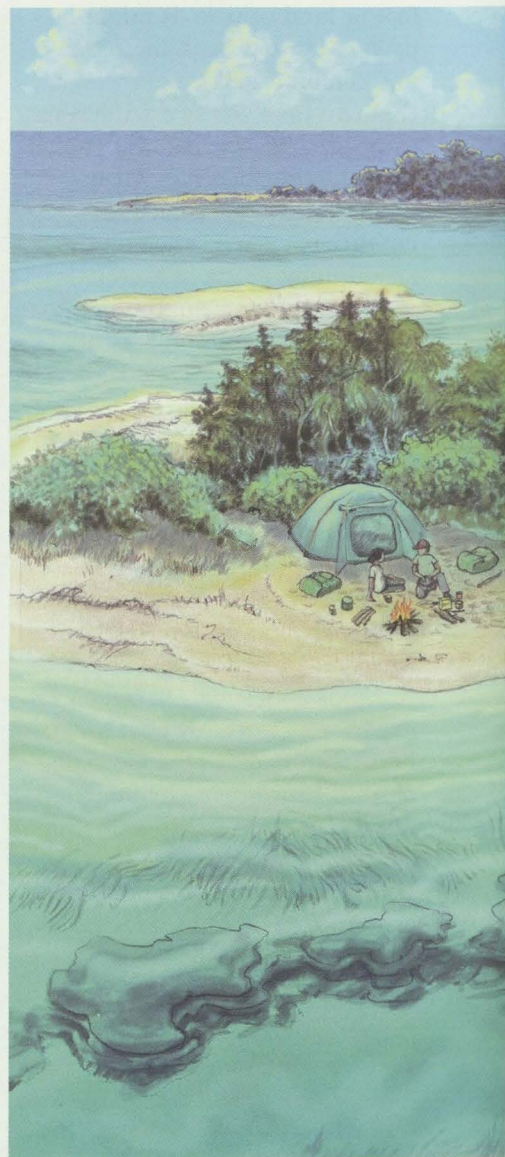
Depending on the weather and wildlife, different survival items come in handy. In Florida, I find hats, sunglasses, sun block lotion, bug spray and insect repellent essential. They are important enough that I usually carry a backup of each.

Chances are, you won't be camping within sight of your boat, so invest in a good anchor and suitable ground tackle for common types of holding ground. The shores of Florida are predominantly sand, but you may have to deal with turtle grass, mud, shell, coral or oyster bars. Fortunately, rocky bottoms are relatively rare here. Talk to people with local knowledge and take their advice. Don't skimp – use stout line recommended for anchoring, a good length of chain to weigh down the line, or rode, and first-rate shackles and swivels to hold it all together.

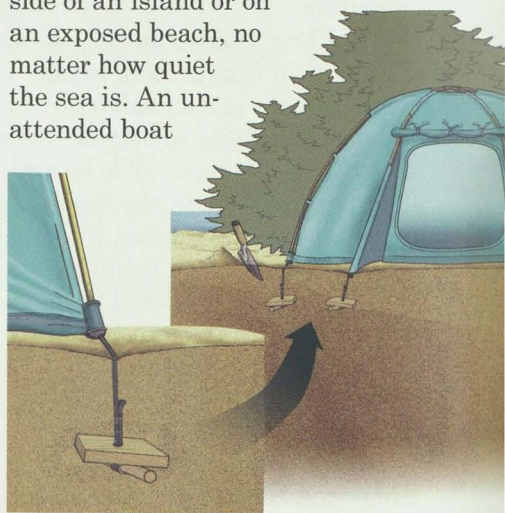
Always secure your boat in the most protected spot you can find, even if it means carrying your camping gear a long way to your set-up spot. Set your hook by hand and make sure it's well dug in, even if you have to get wet. Consider how the boat may swing as wind and tide shift, and be ready to use two anchors or a backup mooring to a tree on shore. There is nothing more demoralizing than returning to your boat only to find it nowhere in sight.

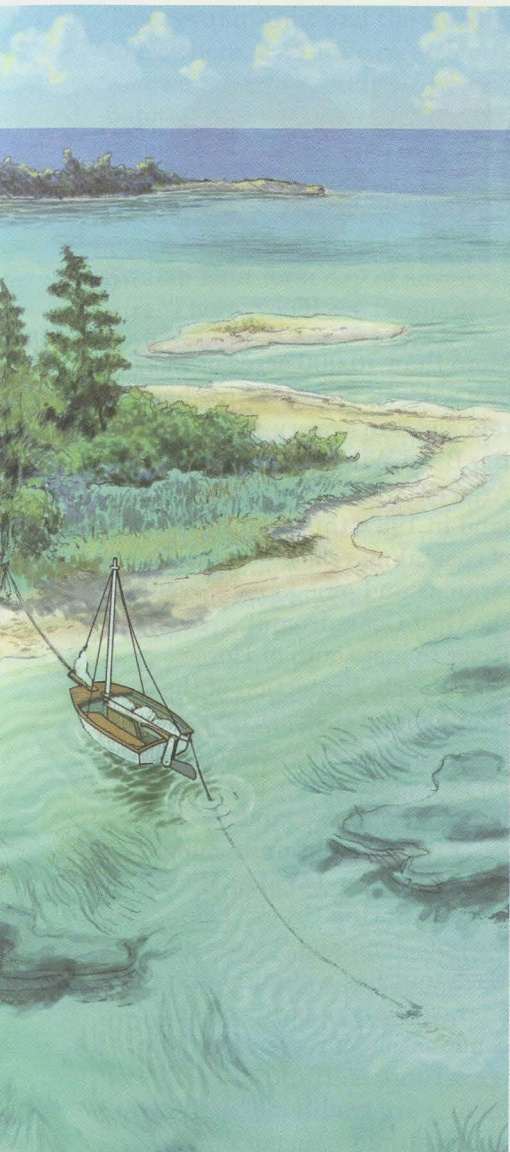
One trick is to rig one anchor with a sentinel (a weight which can be lowered down the rode to help keep it on the bottom) and another with a float (to keep its rode off the bottom). This prevents the two lines from fouling each other or their anchors if the vessel is dancing around in the wind.

Whole books have been written on the art of anchoring, and it is a subject worth studying. A dinghy can often be carried out of



the water or beached. Do so if you can, but tie up or set an anchor anyway in case the tide rises. Never anchor on the weather side of an island or on an exposed beach, no matter how quiet the sea is. An unattended boat





in sudden, heavy surf is almost certain to be lost.

Once ashore, outdoorsman's skills come into play. In most areas, setting up a tent is a routine task, but on sandy beaches, I often find tent pegs to be useless. To anchor a small tent on loose sand, I suggest replacing pegs with 3" x 3" plywood or plastic squares (like those on the ends of drafting film rolls). Set up your tent, and instead of hammering in the pegs to keep the tent ropes taut, bury the squares about 8 inches under the sand. A small hole drilled in the center allows tent line to pass through. Then, tie a peg there to prevent the line from slipping back through the hole. After bury-

ing the pad, pour a little water in the hole to make the sand gummy and hard so it won't pull out, even in a gale.

I have had this type rig survive several Florida thunderstorms on an exposed sandy beach. It's a scary ride, but if you have a good tent, it will not be swept away. A garden trowel and a toy plastic bucket come in handy and provide a convenient place to store the plastic pads and pegs and other items you need to secure your tent.

When setting up your shelter, orient it so the prevailing wind will blow in the open end and out the back window. This will keep the tent inflated and provide a cool draft. In Florida's super-hot summer and on shadeless beaches, I rig a temporary lean-to or tarp over the tent to provide shade and keep it cool in case I want to duck inside for a nap or meal. The tarp can be put away after dark.

A pup tent in the hot sun can become an oven in minutes, so choose a color that will reflect sunlight and be visible from the air – just in case. Also, make sure your tent is pitched above the high water mark!

A folding lawn chair, made of aluminum tubing and plastic straps, can be a welcome luxury. It is light and folds up so it is easy to pack, and is a welcome alternative to squatting or sitting on the ground, especially around a campfire.

Florida mosquitoes, especially the saltwater marsh variety, can become a big problem after dark, so make sure your tent is fully rigged before sunset. At night, I suggest keeping a wide-mouth jar inside for liquid waste until it can be disposed of in the morning. Leaving your shelter for even a moment lets legions of biting insects inside, and they are guaranteed to keep you miserable all night. If some do get in, use a flashlight to find and dispatch them. They tend to rest on the

tent fabric and are easy to spot.

The dreaded "no-see-ums" easily slip through the holes in mosquito netting, but I find spraying the screen doors and windows with insecticide (from the inside of your tent) will help drive them off. A freshwater sponge bath, clean clothes and a light spray with repellent before bedtime will discourage the few that get through.

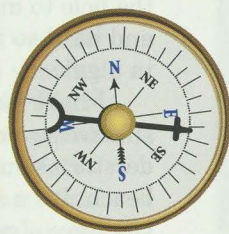
Outside, your caches of food and clothing are in stout plastic, so they should be safe from most marauding creatures and inclement weather. Beaches are often patrolled by wily raccoons, so take precautions with your provisions. They have a remarkable sense of smell, and they are a lot stronger than they look, so all food items should be kept in tough, airtight containers. Weigh lighter parcels down with heavier ones, so they don't blow away.

With a good boat and increased confidence, a dinghy camper will be able to expand both his range and the challenge of his cruises, traveling farther and staying longer in increasingly remote environments. It need not be a wilderness ordeal – a few days fishing on a spoil island can be a fascinating and relaxing experience.

Dinghy cruising is a great way to enhance your skills as an outdoorsman and a mariner, provide you with exquisite fishing, snorkeling and bird watching adventures and turn any long weekend into an economical mini-vacation. With experience, you will learn to pack and prepare great meals, much better than you could carry in on your back. And with your camp and supplies set up on some central location, you can explore more extensive wilderness areas in your boat.

Florida has a lot of coastline, and many secret places that have changed very little since the Spanish Conquistadors first waded ashore in rusty armor. **FW**

Explore



the Big Bend Wildlife Management Area

By Liz Sparks



More than 70,000 acres of Florida's wildest, most pristine habitats await discovery within the Big Bend Wildlife Management Area (WMA). Acquired as public land in 1987, this 60-mile swath of coastal marshes, hammocks, swamps and pine forests, cradles the Gulf Coast from the Aucilla River to just south of Horseshoe Beach. Protection of these habitats and the vast underwater sea grass beds they adjoin, was an important factor in the initial purchase of these lands.

Five different units make up the Big Bend WMA: Hickory Mound, Spring Creek, Tide Swamp, Jena and Snipe Island. Each unit has a slightly different character and its own special combination of recreational opportunities. Hunting and fishing are traditional activities and continue as major public recreation uses, but excellent hiking, cycling, paddling, photography, birding and wildlife viewing opportunities attract a growing number of visitors.

At Hagen's Cove near Keaton Beach, you can scallop, gig for flounder at night, picnic and climb an observation tower to view a wide array of birds wading in the shallow bay. At the Hickory Mound Impoundment, you can crab, hunt waterfowl in season and observe a diverse abundance of shorebirds and wading birds from the observation tower. These are just two of five Great Florida Birding Trail (GFBT) sites within the Big Bend WMA. Others include a 9-mile scenic driving tour in the

DAVID MOYNAHAN

Tide Swamp Unit and the Road to Nowhere, a 12-mile stretch of roadway through wildlife-rich habitat. Download bird lists and maps on the GFBT Web site: floridabirdingtrail.com/sites_west.htm

Visit Dallis Creek in the Tide Swamp Unit for a day of adventure. There, you'll see remnant stumps of huge cypress trees, evidence of the area's logging history. Dallis Creek is known for its outstanding paddling and fishing, shady hard-packed roads for off-road bicycles, sheltered picnic tables and a mile-long nature hike providing panoramic vistas and productive birding.

Paddlers have discovered the area's network of waterways, including the award-winning Big Bend Saltwater Paddling Trail (BBSPT). This coastal route was named a National Recreation Trail by the Department of the Interior and a Top 12 paddling trail destination by Paddler magazine in 2005. The rugged trail hugs the coastline, providing outstanding adventure for the experienced sea kayaker with

primitive camping skills. Less-experienced paddlers and those in canoes can explore numerous sheltered rivers, creeks and secluded coves. Visit the BBSPT Web site at: MyFWC.com/recreation/big_bend/paddling-trail.asp. A 40-page paddling

guide with details about the BBSPT, can be ordered online or by calling 850-488-5520.

The sea grasses of the Big Bend are critical nursery and feeding grounds for a wide range of marine species and play a vital role in a complex food web. They're largely responsible for the outstanding fishing opportunities all along the Big Bend coastline. Visitors also flock to the area in the summer months to snorkel for tasty scallops nestled in these lush underwater meadows.

In this sparsely-populated locale, it is easy to feel completely removed from the usual sights and sounds of a frantic modern world; it could be Florida many centuries ago. In this peaceful setting, the slightest sounds catch the attention of an observant visitor – fiddler crabs scuttling through the salt marsh, the clacking of a distant clapper rail or the watery slap of a leaping mullet. Explore Big Bend WMA fall through spring when temperatures are pleasant and bugs are fewer; it may become one of your favorite destinations whatever your choice of recreation. **FW**

DAVID MOYNAHAN



Dallis Creek is known for its outstanding paddling and fishing, shady hard-packed roads for off-road bicycles and a mile-long nature hike.



Above: Five different units make up the Big Bend WMA. Each has its own special combination of recreational opportunities. **Facing page:** One of North America's largest birds is the American white pelican, a winter visitor to Florida.

Photographing a family of
sandhill cranes



Article and photographs by Paul Simison

As a wildlife photographer, I often read about the migration of sandhill cranes from Nebraska and the Dakotas to Bosque Del Apache, N.M. Many photo tour leaders bring in large fees to take aspiring wildlife photographers to these “hot spots.”

Once I moved to Florida, I discovered the nonmigratory Florida sandhill crane is just as magnificent as the migratory subspecies. The only real difference for taking photographs is the lack of major migration flight shots.

My photographic focus has always been wildlife. Moving to Florida introduced a whole new world of birds to me. There are many photographic hot spots in Florida, including the Alligator Farm, Ding Darling National Wildlife Refuge, Corkscrew Swamp, the Everglades, the Venice Rookery, Merritt Island, the Viera Wetlands, Fort De Soto, St. Marks, Blind Pass Beach, Cape Coral, Tigertail Beach and numerous other wildlife sanctuaries and wetlands.

This February, I decided to follow a pair of sandhill cranes nesting on the property of a resident of Port Richey. Why would I do so? Because the birds have successfully nested in the



Above: The sandhill parents take turns sitting on the egg. **Below:** An adult gets a running start prior to taking flight. **Facing page:** A very young colt explores its world.





area for at least the past four years, and the spot is only about 50 miles from my home.

The female sandhill crane laid one egg on Feb. 17. This was a full month earlier than the previous year. I made a discovery drive and found her on the nest. The nest was quite small, and the water was very high.

Last year, I followed a pair of sandhills until their pond dried up and predators got the young ones. Sandhills nest in marsh vegetation or on the ground next to the water. This marsh supplies food, water and protection from predators.

The female sat on the nest most of the day and changed position and moved the egg about once an hour. The male came in about 4 p.m. and changed places with the female. He was not as apt to

Left: The sandhill parent prepares to discard the egg after the chick has hatched. **Below:** The parents feed the chick its first worm. **Right:** The colt crawls on top of its parent for warmth and safety.





change positions, but excelled at protecting the egg. When birds or animals came near, he noisily postured. Sandhills have a trumpeting call that can be heard for many miles. The sound is roughly a cross between a wild turkey and a dolphin – high pitched and sharply trilling, but guttural, haunting and beautiful.

Sandhill parents alternate positions for 28 to 31 days, the average incubation period. This pair took 33 days to hatch a single egg. Most sandhills lay two eggs, but seldom do both survive. This pair has had only one chick for two years in a row.

When photographing wild animals, it is essential to use caution and approach the animals in a non-threatening manner. A blind is helpful, but limits mobility when the colt (chick) is active. I made my presence known to the birds by making people and camera noises to allow them to become aware of my presence. They accepted me almost immediately. The male would walk up to within

15 feet of me and then ignore me. The female stayed farther away.

During the next several weeks, I photographed the birds sitting on the nest, during the first day of the hatch, discarding the egg shell and the first feeding.

After hatching, a colt is able to swim to shore and follow its parents through the tall grass.

The sandhill diet consists of insects, aquatic plants, small rodents, seeds and berries. The parents and colt leave the nest in the early morning and spend the entire day foraging for food. Near sunset, they make their way back to the nest, where the colt crawls under the wing of the female for warmth and security.

After the first week, the pale brown colt is able to forage for itself, but still enjoys a handout from both parents. The parents lead the colt and protect it while ensuring it has plenty to eat. Colts eat all day long and their growth rate is phenomenal. They grow to be more than a foot tall in a week's time.

Feathers start to appear in patterns on the colt's back and sides, and its wings grow longer and are more useful as balancing tools. It will be fledged (able to fly) within two and a half months, but usually stays with the adults until the next mating season when it is driven away, and the adults' mating dance begins again.

In the second weekend of this colt's life, things changed. Unusually high rain amounts flooded the nesting site. The birds had to find their way back to a pond they had nested in the previous year and rebuild the nest. They did this in one day, and the young chick mimicked the adults by putting grass and debris on the nest mound. Although still a small nest, it was used by the family as a nesting site, with the male standing guard about 15 feet away.

I will continue to return to the site to photograph the development of the colt until adulthood, where I hope to photograph "the mating dance of the sandhills." **FW**

The most abundant crane on the planet

Sandhills are found in most rural and semi-rural areas of Florida. Their name comes from their habitat on the edge of Nebraska's Sand Hills. Two subspecies of sandhill crane occur in Florida. The Florida sandhill crane (*Grus canadensis pratensis*) is a year-round breeding resident. The greater sandhill crane (*Grus canadensis tabida*) is the larger of the two subspecies and winters in Florida but nests in the Great Lakes region. Cranes are monogamous breeders.

The sandhill is the most abundant crane on the planet with more than 650,000 birds among seven sub-species. Three are nonmigratory, including the Florida subspecies. Two of the three nonmigratory species' populations are endangered, and the Florida sandhill crane is listed as threatened.

Sandhill cranes are overall gray in color with a red forehead and dark bill. Mated cranes have bright white cheeks, while unmated cranes have gray cheeks. They fly with their necks straight in front and their feet trailing behind, unlike the other gray bird of Florida, the blue heron, which flies with its neck folded. The sandhill is thought to be more closely related to the rail than the heron or egret, and is a close relative to the nearly extinct whooping crane.

Young sandhills weigh about 12 pounds. Males are larger than females, but their markings are identical. Cranes live to be older than most birds and may live to be 20 years old.

As human communities grow, cranes lose their natural habitat and are forced to adapt to living in more urban areas. They can be seen grazing on golf courses and visiting suburban households where birdfood has been placed outside. This can lead to conflict between humans and the large birds.



The colt continues to grow and no longer fits under its parent's wings. Colts fledge at about two months but usually stay with their parents for several more months.



Florida Fish and Wildlife Conservation Commission sworn personnel are fully constituted police officers with the authority to enforce all laws of the state, not just those relating to resource conservation.



Field Notes

Out for a stroll

Officer Ron Stark was dispatched to a call regarding a 9½ foot alligator on a Fort Lauderdale road. Broward Sheriff Deputies closed one traffic lane due to the alligator's presence. It apparently walked onto the roadway from a nearby retention pond. With the help of deputies, Officer Stark was able to rope, tape and secure the alligator until a licensed trapper arrived. The incident gained much media attention.

Stop and roll

Officer Mark Clements was returning from a shrimp detail when he saw a passenger in a truck ahead of him vomit out of the window. The truck then swerved off the road and struck a curb, flattening the front right tire. Officer Clements activated his emergency lights and stopped behind the truck as the driver stumbled out to inspect the damage. Before Officer Clements could speak to the driver, he noticed the truck was in reverse and backing toward his patrol vehicle. After securing the runaway truck, Officer Clements observed the driver displaying signs of impairment. The driver was arrested after testing revealed .222 and .224 breath alcohol content and was booked into the county jail.

Swamped

Responding to a report of a vessel sinking in Apalachicola Bay, Officer Steven Cook arrived at the scene to find the vessel submerged after being swamped by a wave crashing over the stern. Officer Cook pulled the vessel operator and two passengers from the cold waters. All of the boaters were wearing personal flotation devices and required no medical attention.

Just for fun?

Officer Adam Resnick received a call from a local hospital regarding

a person being treated for a provoked alligator bite that occurred in the Everglades. Officer Resnick responded and met with the victim who had tried to catch a 9-foot alligator for fun and was bitten on the arm, causing a superficial puncture wound. The investigation is ongoing and charges are pending.

Setting "Satan" free

ROBERT T. ZAPALORTI/NATURE'S PHOTO IMAGES



Responding to an anonymous complaint, Investigator Jason Boswell visited a mobile home community to check on a resident who reportedly had a captive rattlesnake. The resident stated he had a ball python, but it died in January and the only thing left was an iguana. After receiving consent, Investigator Boswell searched the home and found a 4-foot eastern diamondback rattlesnake in the man's bedroom. The man started to deny that the snake was his but eventually confessed to having taken the snake from the wild while living in Ocala. He named the reptile "Satan." The subject was cited for possession of a venomous reptile without a permit and given two warnings for improper caging and transport. The rattlesnake was released back into the wild on a state-owned mitigation property.

Barricaded in a boat

The SOG members were called out to assist the Monroe County Sheriff's SWAT Team during a five-hour standoff involving a live-aboard vessel and a domestic violence complaint. Neighbors contacted the police when they heard a couple ar-

guing onboard their boat. When officers arrived, the man refused to cooperate and barricaded himself and his female companion inside the vessel. Eventually the suspect was removed and arrested.

But I caught it in Georgia

Responding to a complaint, Investigator Jason Boswell arrived at the home of the suspect and saw a cage in the suspect's side yard. Investigator Boswell spoke to the man, who admitted he had a bobcat in the cage, but claimed he trapped the cat in Georgia. The 64-year-old suspect did not have a Captive Wildlife Class 2 permit and was cited for the violation. A warning for improper caging was also issued. The bobcat was released back into the wild along the St. Mary's River.

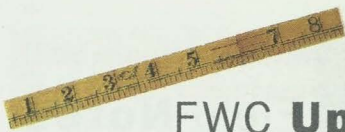
Georgia authorities will be notified to follow-up for illegal trapping.

What's on the menu?

Officers Scott Engstler and Hank Juntunen observed a woman feeding Sonny's ribs to alligators at a local boat ramp. Investigation revealed the woman to be in possession of marijuana. Officer Engstler cited her for both violations.

Didn't learn the first time

Officers Adam Resnick, Blake Hoelscher and Gregory Bryson were enforcing the panther speed zone on Daniels Parkway Extension when Officer Bryson stopped a vehicle for speeding. He arrested the driver for driving under the influence and driving with a suspended license. The subject's license was suspended because he had been arrested by Officer Brian Cazalot three months earlier for speeding in the panther zone and driving under the influence. In addition to the arrests made by Officer Bryson, a total of eight citations were issued for unlawful speed violations during the detail.



FWC Update

New gopher tortoise permit guidelines passed by Commission



WILLIAM J. WEBER

During its April meeting, the FWC approved the Gopher Tortoise Permitting Guidelines, the first major step in launching the gopher tortoise management plan approved by the Commission last September. The FWC reclassified the gopher tortoise to a threatened species last year, and the management plan serves as a blueprint to conserve the species.

This 62-page document is a framework for helping Florida meet the management plan objective of decreasing gopher tortoise mortality on lands proposed for development. The guidelines are intended to be a single source for all policies and protocols associated with the FWC's gopher tortoise permitting system.

Under the permitting guidelines, gopher tortoises must be relocated out of harm's way by an authorized agent, who will obtain a permit from the FWC. All permits will require some type of mitigation contribution – in the past, some permits were at no cost.

The new permitting system is designed to create incentives for those who relocate gopher tortoises to protected land and thereby provide higher conservation value for the tortoises. In other words, those permit holders who move tortoises to protected, high-quality, managed habitat, will contribute the least for permits. That's because the higher quality the habitat, the better chance the tortoises will have to perpetuate the species, which is the goal of the management plan.

The permitting system also is designed to help provide incentives to landowners to manage their land for gopher tortoises and other native wildlife species. Landowners who do so may qualify for having their land certified and permitted as protected recipient sites eligible for receiving displaced gopher tortoises.

The Gopher Tortoise Permitting Guidelines are available at MyFWC.com/permits.

"Team of the Year" honors go to South Florida investigators

The FWC's Division of Law Enforcement selected a South Florida squad of investigators as its 2008 "Team of the Year." The winning team is headed by Lt. Alfredo Escanio and includes Investigators Manual Pomares, Maria Forrest, Andrew Carcasses, Jeff Burke, William Trubey and Arthur Matson. The group covers three of the most active counties in the state – Dade, Broward and Collier.

"I am very proud of this team," said Col. Julie Jones, FWC's Law Enforcement commander. "They exemplify the kind of people this agency is made of – professional, dedicated and adaptable."

Between January and July, the team investigated the deaths of 18 people related to boating accidents and drowning. The group also investigated Internet sites that posted photographs and videos of fish and wildlife law violations.

In one case, FWC investigators received information that a great white shark was taken during a chartered fishing trip off Port Everglades. Comments were posted on the Internet forum pages of a well-known sportsman magazine, which included links to a video of the great white shark harvest. The investigators initiated a criminal investigation and then presented their case to the Broward County State Attorney's Office. The captain and first mate of the vessel were charged with the illegal harvest of a great white shark.

The squad also initiated and oversaw the investigation of illegal grouper sales and mislabeling. Approximately 407 retail and wholesale establishments were inspected during Operation Grouper Gate. Officers and investigators issued 38 misdemeanor charges and 47 written warnings for violations and seized more than 2,000 pounds of illegal product as evidence.

Concerned citizens call FWC and report violations on a daily basis. After receiving complaints about the death of a young woman from an alligator attack, the South Region team investigated tour boat operators suspected of feeding alligators. They collaborated with the Broward County Sheriff's Office on "Operation Git-em Feeding," which focused on commercial tour operators in Broward County who were feeding and molesting alligators. As a result, four misdemeanor arrests were made for feeding alligators.

Commission Chairman Rodney Barreto also praised the team. "Residents of this state are lucky to have people of this caliber serving them," he said.

Along with the investigations cited, the squad inspected facilities that housed and exhibited captive nonnative and dangerous wildlife, and investigated reports of escapes, attacks and injuries.

"Though working long hours, often in adverse conditions, these officers more than got the job done, and they did it with positive attitudes," Jones said.

FWC approves lobster rule amendments

The FWC amended its lobster management rules during a public meeting in Tallahassee on April 10. These rules took effect July 1.

The amended rules extend the current moratorium on reducing the number of traps in the lobster fishery until July 1, 2009. This will give the FWC time to work with stakeholders to find ways to limit the number of traps used to harvest lobsters in Florida.

The rules also allow the display of two spiny lobster endorsement numbers from one vessel so that two commercial lobster license holders can fish from the same vessel. This will help new lobster license holders who don't own a vessel yet to work their lobster traps.

In addition, the rules prohibit the harvest and possession of egg-bearing lobsters of any species, which will help ensure the health of all lobster populations in Florida.

No other changes to lobster regulations will be made for the 2008-2009 harvest season. The regular commercial and

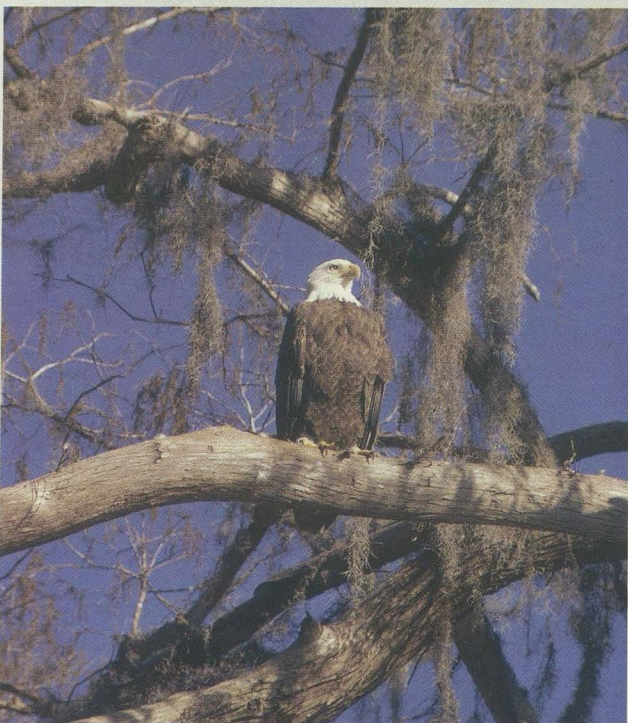


SEBASTIAN GREEN / ALAMY

Adult lobsters caught in Florida are hatched from eggs that may have come from as far away as South America.

recreational lobster harvest season will reopen on Aug. 6 as usual, and the special two-day sport season for recreational lobster harvesters this year will take place on July 30 and 31.

Bald eagle rebound successful in Florida



WILLIAM J. WEBER

On April 9, the FWC approved a final bald eagle management plan and removed the bald eagle from the imperiled species list. Rodney Barreto, FWC chairman, applauded the work done with the bald eagle's increasing population in Florida.

"The bald eagle is an icon of imperiled species protection, and conservation efforts for the species have

been a success story that reflects great credit on agencies and people who worked tirelessly to make it happen. Good news is hard to come by sometimes, when we're dealing with an imperiled species, but we've all earned the right to celebrate a victory," Barreto said.

Previously, the FWC classified the bald eagle as a threatened species on the state list, but the change is consistent with the U.S. Fish and Wildlife Service's decision to remove the species from the federal list last August.

Robin Boughton, FWC bald eagle management plan leader, said the birds' comeback has been astounding all over the United States, but in Florida in particular.

"Surveys found only 88 active nests in Florida when monitoring began in 1973," Boughton said. "In 2007, more than 1,100 active nests were counted."

The bald eagle management plan will serve as a conservation blueprint to ensure the eagle continues to thrive in Florida. The Commission also approved a bald eagle rule and a permitting framework that will continue to protect the bald eagle in Florida.

"The goal of the plan is to maintain a stable or increasing bald eagle population throughout the state in perpetuity," Boughton said. "To achieve this goal, the plan calls for conservation actions, such as land management, habitat acquisition, private land incentives, public outreach and the continued monitoring of eagle nests and territories."

In addition, the bald eagle will remain protected by the federal Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act and the state bald eagle rule proposed in the plan.

Georgia and Florida end reciprocal license exemption for seniors

An agreement between Florida and Georgia that allowed senior citizens from either state to hunt and fish in fresh water without licenses in both states has ended.

The agreement, which dates back to 1981, ended on June 30.

Georgia officials announced in May 2007 that economic realities have rendered the reciprocal agreement no longer feasible for hunting, and it was removed from the books. The nature of the agreement requires that Florida follow suit. The FWC voted to end the reciprocal agreement concerning freshwater fishing, as well. The agreement never has exempted nonresident seniors from either state from salt-water fishing license requirements.

Senior citizens, 65 years or older, who are Florida residents may continue to hunt and fish in Florida without purchasing a Florida license, although the FWC encourages seniors to purchase licenses to support conservation.

Wildlife Foundation of Florida awards grants to FWC

The Wildlife Foundation of Florida awarded \$414,034 in grants to the FWC to support the agency's research, management and promotion of Florida's natural resources.

A total of \$358,034 came from funds raised by sales of the Conserve Wildlife specialty license plate, and an additional \$56,000 came from sales of the Discover Florida's Oceans specialty license plate and a donation from the William Howard Flowers Jr. Foundation.

Some of the grants, approved by the foundation's board of directors, include \$30,000 to support FWC's Florida Fish and Wildlife Research Institute marine fisheries enhancement. In addition, the foundation granted \$5,000 to fund photo-identification of North Atlantic right whales in Northeast Florida. Funding for that project was courtesy of a donation from the Flowers Foundation.

A \$37,500 grant will help the FWC examine Internet traffic in regulated fish and wildlife. Nongame wildlife conservation received a \$160,000 grant.



GREG LAVATY

The Wildlife Foundation awarded \$50,000 to the FWC's Safe Harbor Program, which works with private landowners to bring back the red-cockaded woodpecker.

The foundation exists to support the FWC. Visit wildlifefoundationoffl.com or send a tax-deductible contributions to the Wildlife Foundation of Florida, P.O. Box 11010, Tallahassee, FL 32302.

Red snapper sport season reopens in Florida's Gulf waters – with changes

The recreational red snapper fishing season in Florida waters in the Gulf of Mexico reopened on April 15 and will remain open until Nov. 1. Florida waters extend nine nautical miles from shore in the Gulf.

While Florida's Gulf red snapper season is opening as usual this year, there have been some recent, significant changes to Gulf red snapper regulations.

The red snapper bag limit for sport anglers in the Gulf has been lowered from four fish daily per person to two fish per person, and the captain



JOE RICHARD/SEAFARITES.COM

Adult red snappers may live more than 20 years and weigh 35 pounds or more. They spawn from June to October.

and crew of for-hire vessels in the Gulf may not keep the recreational bag limit.

In addition, the recreational red snapper fishing season in Gulf federal waters has changed and opened on June 1 and will close on Aug. 5. Gulf federal waters extend well offshore beyond state waters.

The minimum harvest size for recreational red snapper in the Gulf remains unchanged at 16 inches total length.

More information about red snapper management and regulations is available online at MyFWC.com/marine.

Nick Wiley and Diane Eggeman assume new FWC posts



Nick Wiley

Vic Heller, assistant executive director of the FWC since 1995, retired in June. His replacement is Nick Wiley,

former head of the agency's Division of Hunting and Game Management.

Wiley's replacement is Diane Eggeman, formerly the FWC's chief waterfowl biologist.

Wiley, 46, earned his bachelor's degree in biology from Georgia Southern University in 1983 and his master's in wildlife management from Auburn in 1986. He joined Florida's wildlife conservation agency in 1988 as a biologist, and from 1990-94 worked as assistant leader in its

Alligator Management Section.

He led the agency's Small Game Management Section from 1994-97 before he took over as head of its Bureau of Wildlife Management and worked his way up to division director in 2004.

"This is more than a promotion to me," Wiley said. "It's an honor to know this agency has the confidence in me to elevate me to this level. I'm going to work hard to prove myself worthy of that confidence."

Wiley and his wife, Evelyn, and their two children, Duncan Ernest and Brooks Lee, live in Tallahassee.

Eggeman, 47, earned her bachelor's degree in fisheries and wildlife from the University of Missouri in 1981. She joined Florida's wildlife conservation agency shortly after earning her master's degree in wildlife management from the University of Maine in 1986. She worked as a waterfowl biologist until she took over



Diane Eggeman

as the agency's waterfowl management coordinator in 1998.

"I'm excited about leading the agency's

efforts to provide safe and sustainable hunting opportunities," Eggeman said. "We have excellent staff members who work well together and are not afraid to move forward in new directions and tackle tough problems. These traits will be critical in FWC's efforts to ensure the future of hunting in Florida."

Eggeman, her husband, FWC aquatic habitat biologist David Eggeman, and their daughter, Leah Christine, live in Tallahassee.

Conservation law enforcement is different down south... Eh?

Canadian Conservation Officer Mike Bartlett went on a two-and-a-half-week whirlwind tour of the state with FWC law enforcement officers. He was part of an exchange program sponsored by the North American Wildlife Enforcement Officers Association.

He visited in February, when typically he would be dealing with snow which is measured in feet, not inches.

Bartlett started his journey in Florida's Panhandle where he experienced "beautiful" Escambia River and the Blackwater WMA. He also toured the Butler lake chain near Orlando in Central Florida.

In South Florida, Bartlett



Canadian Conservation Officer Mike Bartlett experienced the Everglades on a swamp buggy during a tour of the state.

was treated to an airboat ride on Lake Kissimmee. The Florida experience included Bartlett "getting stuck on a tussock (floating, dense vegetation) with the alligators and snakes." A swamp buggy, which Bartlett defines as an "oversized ATV," ride gave the Canadian officer an Everglades experience. Bartlett's tour of duty ended with a patrol of Key West on the agency's 30-foot manta boat.

FWC officers checked hunters and fishers, conducted boating safety checks, caught a trespasser, retrieved stolen property and attended court while Bartlett was with them.

New dawn

for an old river

By Doug Alderson

DOUG ALDERSON

Snaking its way through a marshy floodplain up to 3 miles wide, Florida's Kissimmee River once was a 103-mile natural waterway, known for its abundant fish and wildlife. For millennia, Native Americans, followed by pioneers and sports enthusiasts, enjoyed the renewable resources the river provided and the transportation it offered. But when towns were built along the upper chain of lakes that connected to the river, and water flooded streets for weeks after large storms, the Kissimmee River was blamed, since water flowed slowly through its wide floodplain.

Enter the U.S. Army Corps of Engineers.

From 1962 through 1971, the corps cut a straight ditch through the river's heart – reducing its length by half – to speed the flow of water to Lake Okeechobee. As a result, more than 35,000 acres of wetlands dried up, and fish, waterfowl and other wildlife

populations drastically declined. Water was no longer being filtered by a slow, meandering river channel through expansive marshlands – the kidneys of any natural system. Lake Okeechobee received too much water too quickly during the rainy season, forcing the South Florida Water Management District to dump excess water through canals to the Gulf of Mexico and the Atlantic Ocean. Because the water quality was often severely degraded, Lake Okeechobee and estuaries on both coasts began to suffer from harmful algae blooms.

Meanwhile, due to the Kissimmee canalization and other major changes in the system, the Everglades below the big lake did not receive the normal amount of water during the dry season, and the entire system was thrown off kilter. Fish, wildlife and birds all suffered. It was a domino effect. Even the upper chain of lakes was affected since water was no longer backed up in the system by a slow-

moving river. Boaters complained they were running aground in some of the lakes – formerly a rare occurrence.

Calls for undoing some of the work were being placed before the last floating suction dredges and draglines left, but it wasn't until 1999 that engineers along the Kissimmee began turning dirt, this time to help remediate damage. More than 7 miles of the C-38 Canal were backfilled, water was diverted into the old river channel, and long-dormant wetlands began coming back to life. A key dam on the river was blown up; the sequential photographs of the destruction were featured on the Army Corps of Engineers Web site. Blow up a dam for conservation? It was enough to make any battle-scarred Kissimmee activist flush with pride.

In 2006, another milestone was reached: Florida had acquired enough land along the chain of lakes and Kissimmee River to complete the restoration. In all, 43

miles of winding river and 28,800 acres of wetlands will be restored by 2012, and another dam will meet its end. At a cost of more than \$500 million dollars, it is considered the largest true ecosystem restoration project in the world. It has attracted ecologists from around the world who seek to resurrect their rivers.

In the spring of 2007, I was fortunate to be a part of a 12-day kayaking and hiking expedition from Orlando to Lake Okeechobee. I represented the Florida Department of Environmental Protection's Office of Greenways and Trails. Part of our focus was to highlight restoration of the Kissimmee River.

Just below a live-oak-covered bluff where the Second Seminole War-era Fort Kissimmee once stood, team member Mike Jones and I paddled our kayaks downstream to the restoration project. Signs warn boaters to turn back, but we had permission to enter the area and were met by two officials with the Corps of Engineers. They politely told us how to navigate through the area.

"Up ahead, you'll see a channel on your right. Just take that," the more senior of the two told us. "That's where we had to re-carve part of the old river channel that had been destroyed by the canal. There are some shallow spots, but you should be able to make it through."

For the re-carving project, the corps consulted biologists and used old maps of the original channel.

Mike and I paddled on. Huge yellow dump trucks rumbled past. They carried dirt from former spoil berms to an area of canal being filled, forcing the water into the carved channel. Then we encountered floating yellow turbidity barriers that keep soil from drifting into the river, but they presented an obstacle for us. The banks were steep and muddy, discouraging us from portaging,

and the barriers weren't stable enough to stand on to slide our boats across. After trial and error, the best method to move over them, we learned, was to paddle into the row of barriers at full throttle and shoot over the top.

As we wound around the construction site through the carved channel – admiring how the Corps had duplicated the natural bends and twists of a natural river – several baby alligators, about a forearm in size, scurried along the bank. Then their 8-foot-long mother shot off an embankment, belly flopping into the river.

"Whoa!" Mike cried. "I wasn't expecting that."

On the other side of the construction site, our two Corps friends were waiting to make sure we made it through. They waved and took photos. We were likely the first boaters to test their creation, although the alligators had obviously taken to it right away.

When we entered the historic river channel, its flow newly restored, a subtle feeling of jubilation came over me. The lifeblood of the river – water – had returned after a long absence, seeming to awaken a sleeping beauty. Serpentine twists and bends through lush marshlands, occasionally bordered by sandy banks and cypress and live oak

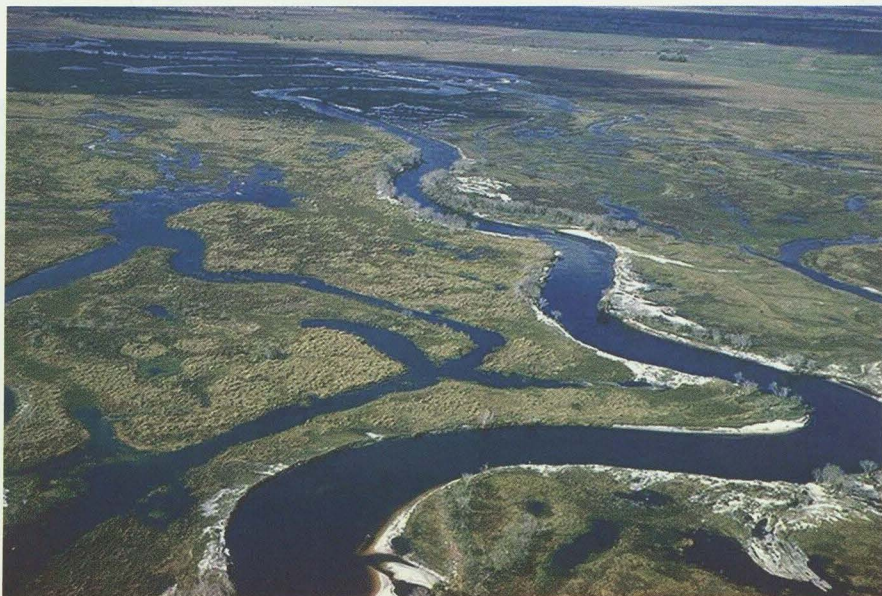


BOB MINDICK



BOB MINDICK

Above: A woodstork and river otter spotted along the Kissimmee River. **Below:** The Kissimmee River before channelization. **Facing page:** The restored Kissimmee River channel is on the right and the Kissimmee canal is being filled on the left.



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

trees, added mystery and beauty. Meandering. Unpredictable. If ever there was a proper place of natural harmony for paddlers, this was it. With no canal to divert flow, we finally felt we were on the Kissimmee River as it had been for eons.

For nearly 30 years, this channel had been virtually impassable, clogged by muck and aquatic weed growth, such as water hyacinth and water lettuce, but the return of water flow flushed out the channel within six months. Long-buried sandbars reemerged. Dry-land trees that had encroached into the floodplain started dying back. Once dormant native plants such as pink-tipped smartweed, the jointed stems of horsetail, and various sedges and rushes popped up along the shores. Vast stretches of soggy broadleaf marsh began to thrive in what had been dry cow pastures, bahia grass was replaced by leathery green arrowhead plants, white-flowered duck potato and purple-topped pickerel weed. The native seeds had been embedded in the soil since before canalization, waiting for the water that would bring them to life.

As the re-emerging wetlands began filtering excess nutrients from the water, the flushing of the channel and turbulent mixing from the restored flow led to a dramatic increase in dissolved oxygen levels in the river. The

result was a biological boon. While scientists attest to a rapid rise in aquatic invertebrates in the river channel, such as filtering cad-disflies and larval midges that small fish thrive on, anglers are raving about the improved fisheries. Catches of bass and bream are reminiscent of the old Kissimmee. Even fishing professionals are taking notice. The 2006 CITGO Bassmaster Classic second-place-winner Rick Morris boated all the way down from Lake Toho to the restored section of the Kissimmee for his winning catches.

With the ecosystem improvements, animals at the top of the food chain are naturally benefiting. Mike and I began counting the alligators we encountered. By day's end, the total was in excess of 150. Many topped 10 feet in length. Since becoming scarce as a result of poaching, Florida's restrictions on the commercial trade of alligator skins have helped the alligator population rebound. In the past, some Florida cattlemen are said to have waged war against alligator poachers because wet "gator holes" helped their livestock survive during drought periods.

Early accounts of alligators along the river and chain of lakes are the stuff of legend. Tourists on steamships and sailboats frequently shot at the reptiles for sport in much the same manner as railroad passengers blasted

away at western bison from their window seats. Today, only licensed trappers and hunters help manage the population.

Since the day was warm, and we hadn't had a shower in three days, Mike and I decided to rinse off in the river. The problem was the alligators. They were around every bend, and as part of their survival instinct, would swim to deeper water and submerge to conceal themselves when we approached. Young ones would often do so with a furious splash, but the really big ones would swim and submerge with unnerving slowness, showing little fear. So, we found a sandy spot and took turns wading in the water and splashing off, while the other stood guard with a kayak paddle, ready to fend off any curious reptilians. Alligators rarely attack people unless they've been fed by humans, and we doubted there were enough people who frequented this remote river to worry about that, but still.

Someone once said that true adventures were the result of poor planning, or, I might add, being unnecessarily careless. Neither of us wanted to end up as candidates for a Darwin Award – usually given posthumously to a person who departed this world in such a stupid fashion that he or she (usually a he) benefited the gene pool by taking an early exit. I could picture it – an excerpt of my log



would describe the multitude of alligators, and the next line would say something like, "And then they decided to go swimming!"

We noticed more birdlife along the restored river than we'd seen along the canals – limpkins, green herons, yellowlegs, stilts, cormorants and many others. Since the restoration, biologists have observed eight species of shorebirds that had not been seen along the river in 30 years, plus they have documented a momentous increase in waterfowl and wading bird numbers and diversity. The Kissimmee, at least this middle section, was back.

In our excitement in paddling the restored river, however, there was a worry. It was getting late, and the river wound unceasingly in tight curves. As the crow flies, my GPS showed our evening's destination to be only three miles at one point, but the distance would slightly increase and then decrease as we navigated the channel's hairpin curves. One newspaper reporter in 1899 bemoaned the Kissimmee's curves: "There are bends where it takes nearly an hours [sic] steaming to reach a spot less than a 100 yards ahead of the bow."

As the sun dipped lower, fatigue set in.

"We just seem to wind and wind and never get anywhere," Mike observed.

We had paddled almost 20 miles.

When Mike and I finally reached the mouth of a tiny creek the map denoted as our spot to stop paddling and park our kayaks on shore – resting our weary arms – we had a dilemma. Our campsite along the Florida Trail was more than a half-mile away across the Kissimmee's wide floodplain. We could see a line of live oaks in the distance; our GPS pointed to a slight dip in the treeline that marked our destination. Our plan – largely devised in an office – was to



JULIA RECKER

Above: Doug Alderson paddles along the Kissimmee River. **Facing page:** The Florida Trail runs along the wide Kissimmee River floodplain in the restored section.

traverse the floodplain on foot and meet up with the hiking contingent of our group.

We took a deep breath and started wading waist-deep in marsh, water and mud, not being able to see below our knees. The mud sucked off a shoe more than once. Mike and I glanced at each other. We didn't need to say aloud our biggest worry – snakes. If alligators were active on such a warm day, what about water moccasins? Plus, we would have to wade back to the kayaks through this same floodplain in the morning. I paused and pulled out the map. Mike didn't need any encouragement to stop alongside and study it as well.

"Look here," I said, pointing to a spot. "If we paddle down the river another half-mile or so, it looks like the Florida Trail comes closer to the river. Maybe we can park the boats and hike on a dry trail to the campsite rather than wade through this."

"Let's do it," Mike agreed.

We could see the line of trees merge closer to the river to the south. We assumed the Florida Trail followed this higher ground. Even with modern equipment such as GPS systems, it pays to know how to read a map and use visual clues from the terrain.

Mike's cell phone rang – another gadget that wasn't available to earlier expeditions. Mike had to

turn his body to get a better signal.

"I can barely hear you," he said.

It was his friend Julia, one of the hikers in our group. They had arrived in camp and were worried about us since the paddlers had generally moved faster than the hikers for the past few days. Mike told her of our plan and she said she'd meet us with a big flashlight as darkness was closing in.

Fortunately, after Mike and I paddled downriver in the fading light, we found the Florida Trail, just as we had hoped. It was marked by a tall footbridge over a side channel. A boardwalk traversed part of the floodplain since a nearby rancher had refused access to the uplands. Julia soon found us, a big smile on her face. We stashed our boats and she guided us to the camp. Mike dubbed the afternoon's adventure "Lewis and Doug."

We had survived the longest and perhaps most rewarding day of the trip. As we walked, we watched a group of wild hogs feeding in the marsh as the setting sun cast orange hues across the mile-wide Kissimmee River floodplain. Natural rivers can be much more challenging than canals, we concluded, but their beauty is unsurpassed. **FW**

Doug Alderson, author of three books and numerous magazine articles, is writing a book about the Kissimmee River Valley. For more information about his work, visit www.dougalderson.net.



Florida's nonnative freshwater fishes

By Bob Wattendorf, Paul Shafland, Scott Hardin and Paul Zajicek

Nonnative freshwater fishes and aquatic plants present challenges to Florida's native species. The Florida Fish and Wildlife Conservation Commission (FWC) works diligently with the public and with scientists to manage and conserve the state's native freshwater wildlife and ecosystems.

Thirty-four nonnative freshwater fishes, introduced from other countries, currently reproduce in Florida. Almost all of these introductions resulted from individuals releasing unwanted aquarium or food fishes, and/or the flooding of aquaculture ponds. Most of these introductions were done accidentally, but nonetheless,

illegally. In addition, nonnative plants, such as water hyacinth, and invertebrates, such as island apple snails, can create environmental problems.

Consequently, it is illegal to release any nonnative fish or any other nonnative organism into the waters of the state. Anyone wanting to dispose of live nonnative aquarium fish should give them to a friend or an aquarium store, or euthanize them by lowering the water temperature with ice or placing them in a plastic bag and freezing it.

During 2007, FWC partnered with public and private entities to post 400 "Stop Aquatic

Hitchhikers" signs at boat ramps, as part of a national campaign. The signs remind boaters to clean their boats, trailers or recreational equipment of mud, plants or animals, and to drain and dry their equipment to prevent movement of nuisance species between water bodies. Nuisance aquatic species include aquatic plants, fish, snails, crawfish or plankton that can cause economic, human health or ecological damage. Species within the state whose spread is trying to be contained include channeled apple snail, rusty crawfish, red-eared slider turtle, green mussel and giant salvinia. Partners that

posted “Stop Aquatic Hitchhiker” signs include the Nature Conservancy, U.S. Forest Service, U.S. National Park Service, and the Florida Department of Agriculture and Consumer Service, Division of Forestry.

Similarly, new posters and advertisements have been developed and distributed to pet stores and other locations to inform residents and visitors of the problems associated with nonnative nuisance species.

So many nonnative fishes thrive in Florida because our aquatic habitats have been dramatically altered. For example, man-made canals in Southeast Florida provide nearly ideal habitats for many of these fishes. Not only are these canals in the warmest part of Florida, but the nonnative fish’s specialized spawning and rearing tactics, such as mouth brooding, may provide them an advantage in these box-cut canals. Elsewhere,

efforts to minimize water-level fluctuations in lakes has caused changes in plant communities and increased the muck on the bottom of lakes, which often favors non-native species.

In Florida, there are only two legally introduced nonnative fish: triploid grass carp and butterfly peacock bass. They are used as biological controls for excessive growths of aquatic vegetation and overabundant forage fishes.

The triploid grass carp is a functionally sterile fish, produced and certified in hatcheries. Since they do not reproduce, periodic stockings are required to control aquatic vegetation. In Florida during the past 20 years, results have generally been favorable. Specific permits are required, and only certified triploid grass carp can be used at approved sites to prevent their spread to areas where they could become a nuisance.

The butterfly peacock is the only reproducing nonnative fish that was legally introduced. Extensive research indicated their release would help convert an over-abundance of nonnative forage fishes, especially spotted tilapia. In 1984, they were released into a highly desirable urban sportfishery, and the result has been extremely successful. They have presented no known detrimental effects while generating millions of hours of fishing pleasure for anglers who spend more than \$8 million a year in Florida to catch them.

Studies in the 1970s and 1980s documented that illegal nonnative fishes had become extremely abundant in some Miami-Dade and Palm Beach counties’ canal systems. Too few native predators existed to eat these undesirable nonnatives. Research demonstrated the butterfly peacock would not harm native canal fish populations. Since water temperatures below 60 degrees kill this fish, they also



FWC FILES

The butterfly peacock is the only reproducing nonnative fish that has been legally introduced into Florida’s waters.

could not consistently live outside coastal Southeast Florida.

In 1989, the fishery officially opened to the public, setting a daily bag limit of two butterfly peacocks per day, with only one allowed to be 17 inches or longer. Butterfly peacocks can be readily caught by novice anglers using live shiners swimming below a bobber, but pursuing a greater quantity and larger ones challenges even the most experienced of freshwater anglers. Since they rarely eat anything but fish, and feed almost exclusively during daylight, fish-imitating baits work quickly, especially in shady areas and around structures.

Although triploid grass carp and peacock bass are note-worthy exceptions, it is important to remember that nonnative species do not generally belong here. It is illegal for anyone to transfer or release any nonnative species in Florida, including the butterfly peacock. The only exception is the immediate release of triploid grass carp and peacock bass that cannot be harvested.

Additional information and relevant links can be found at MyFWC.com/Fishing/Fishes. **FW**



FWC FILES

Above: As part of a national campaign, 400 “Stop Aquatic Hitchhikers” signs were posted at public boat ramps.

Facing page: The nonnative blue tilapia has a flat, bream-shaped body and is a light-blue or gray color with a broken lateral line. It grows significantly larger than its more-easily caught relative, the spotted tilapia, and regularly exceeds 3 pounds and can grow to 10 pounds.



Wildlife Watch

CHARLIE HEIDECKER



WILLIAM J. WEBER



ZIG LESZCZYNSKI



Top to bottom: An armadillo; gopher tortoise hatchling and indigo snake hatching.

July

- Swallow-tailed and Mississippi kites, purple martins and tree swallows gather to migrate south for the winter.
- Bear breeding season begins.
- Scrub morning glory and butterfly weed bloom.
- Buck deer in velvet may occasionally be spotted.
- Sea oats flower on Atlantic beaches.
- Second litters of gray squirrels are born.
- Young crocodiles hatch in South Florida.
- Baby raccoons, foxes, armadillos and bobcats leave their mothers.
- Eastern narrowmouth toads “waaa” like a baying sheep after heavy rains.
- Leatherback, loggerhead and green sea turtles continue to crawl ashore to lay eggs.
- Magnificent frigatebirds fly overhead in South Florida.

August

- Short-tailed shrews begin the year’s second round of breeding.
- Gopher tortoises hatch.
- Shorebirds and blue-winged teal arrive to winter on Florida wetlands and lakes.
- Indigo snakes and other snake eggs hatch.
- Yellow warbler migration begins.
- Alligators hatch from now to mid-September.
- Deer breed in southern Florida.
- Coral along the coast spawn in conjunction with the full moon.
- Bass forage in shallows in late evenings, early morning and at night.
- Loggerhead and green sea turtles continue to nest.
- Leatherback turtles depart for their oceanic foraging grounds.
- Wild hog breeding season begins.



Calendar

August

Aug. 2: A Day in Florida History of DeLeon Springs. DeLeon Springs State Park; DeLeon Springs; 386-985-4212; www.floridastate-parks.org.

Aug. 2-3: Scallop Festival. Shipyard Cove; Port St. Joe; 850-227-1223.

Aug. 7-9: West Palm Beach Kids' Fishing Day. Lantana; 850-488-6058; MyFWC.com.

Aug. 7-10: Saltwater Showdown. Pompano Beach; 954-725-4010; www.bluewatermovements.com.

Aug. 15: Big Pine Night Walk. Chinsegut Nature Center; 352-754-6722; MyFWC.com/Chinsegut.

Aug. 15-17: Islamorada Swordfish Tournament. Islamorada; 954-501-5034; www.miamiswordfishtournament.com.

Aug. 20-24: The Grand Lagoon National Saltwater Fishing Tournament. Panama City Beach; 850-522-0955; www.grandlagoonnational.com.

Aug. 20-22: Florida's Wildlife: On the Frontline of Climate Change. Rosen Plaza; Orlando; 561-799-8553; www.ces.fau.edu.

Aug. 23: Introductory Archery Workshop. Chinsegut Nature Center; 352-754-6722; MyFWC.com/Chinsegut.

Aug. 23: Fishing Derby. Oceanway Park; Jacksonville; MyFWC.com.

Aug. 23: The Mexico Beach Artificial Reef Association Kingfish Tournament. Mexico Beach; 850-648-4354; www.mbara.org.

Aug. 29-30: Florida Catfish Classic Tournament 2008. Apalachicola River - Gaskin Park; Wewahitchka; 850-639-3060.

September

Sept. 2: IFA Redfish Tour. St. Augustine; 478-788-8871; www.redfishtour.com.

Sept. 5-7: Mercury S.L.A.M. Key West; 305-664-2002; www.redbone.org.

Sept. 11: Incredible Edibles. Chinsegut Nature Center; 352-754-6722; MyFWC.com/Chinsegut.

Sept. 11-14: Miami Swordfish Tournament. Miami; 954-501-5034; www.miamiswordfishtournament.com.

Sept. 12-13: Red Eye Inshore Tournament. Sebastian; 772-633-8800.

Sept. 13: Kids' Fishing Clinic. Port Salerno; 850-488-6058; MyFWC.com.

Sept. 13-14: Florida Sportsman Show. South Florida Fairgrounds; West Palm Beach; floridasportsman.com/shows.

Sept. 17-19: FWC Commission Meeting. Jacksonville; MyFWC.com.

Sept. 19-21: Ladies Let's Go Fishing. Islamorada; 954-475-9068.

Sept. 20: Butterfly Workshop by Marc Minno. Chinsegut Nature Center; 352-754-6722; MyFWC.com/Chinsegut.

Sept. 20: Marion County Springs Festival. Silver River State Park; Ocala; 352-236-7148; www.floridastateparks.org.

Sept. 20: Ocean Conservancy's International Coastal Cleanup. www.oceanconservancy.org.

Sept. 25-28: Marathon International Bonefish Tournament. Marathon; 305-743-7368.

Sept. 26: National Estuaries Day. Apalachicola; 850-653-8063.

Sept. 26-28: Pensacola Seafood Festival. Seville Square; Pensacola; 850-433-6512; www.visitpensacola.com.

Sept. 27: National Public Lands Day. www.publiclandsday.org.

Sept. 27: Mote Marine Mobile Exhibit. Fishermen's Village; Punta Gorda; 941-639-8721; www.fishville.com.

Sept. 27-28: Florida Sportsman Show. Florida State Fairgrounds; Tampa; floridasportsman.com/shows.

Sept. 30: Big Pine Fall Wildflower and Butterfly Walk. Chinsegut Nature Center; 352-754-6722; MyFWC.com/Chinsegut.

Fishing and hunting seasons

Now-Aug. 5: Spiny Lobster (crawfish) Closed. Exception: Sport Season, July 30-31.

Now-Aug.: Snook Closed Season in Gulf of Mexico, Atlantic, Monroe County and Everglades National Park.

Now-Aug. 31: Oyster Closed Season in Dixie, Wakulla and Levy counties.

Now-Oct. 14: Stone Crab Closed Season.

July 1-Sept. 9: Dove Club special-opportunity hunt permits on sale.

July 1-Sept. 30: Oyster Closed Season in all counties other than Dixie, Wakulla and Levy.

July 1-Oct. 31: Blue Land Crab Closed Season.

July 15-Aug. 29: Archery/muzzleloading and general gun quota hunt, Phase II applications accepted.

Aug. 5-11: Mobility-impaired and track vehicle quota hunt, Phase II applications accepted.

Aug. 12: Mobility-impaired quota hunt, Phase III applications accepted.

Aug. 26: Waterfowl quota hunt, stormwater treatment area applications accepted.

Aug. 28: Waterfowl quota hunt, St. Johns River Water Management District applications accepted.

Sept. 2: Archery/muzzleloading and general gun quota hunt, Phase III applications accepted.

Sept. 3: Waterfowl quota hunt, T.M. Goodwin/Broadmoor Unit, Phase I applications accepted.

Sept. 6-Oct. 5: Archery Season, South Hunting Zone.

Sept. 9-Oct. 14: Special-opportunity spring turkey hunt applications accepted.

Sept. 11-22: Dove quota hunt applications in small game areas accepted.

Sept. 11-June 30: Bay Scallop Closed Season.

Sept. 18: Special-opportunity daily dove hunt applications accepted.

Sept. 20-Oct. 4: Blue Crab Trap Closed Season in Gulf state waters beyond 3 miles and all federal waters.

Sept. 20-Oct. 19: Archery Season, Central Hunting Zone.

For information on hunting and fishing seasons, visit MyFWC.com.



Fishin' Follies

Hear that summer song of crickets

By Andy Sabol ~ Illustration by John Papesca

When I was a kid, someone dropped off a whole mess of old corrugated sheet metal down at the city dump. Over time, those sheets got scattered around, and under each one lived a tribe of the biggest, blackest crickets imaginable!

Now, everyone knows that for real bream fishing nothing beats crickets, and since my fishing buddies and I were planning a bream-catching trip to Fair Oaks Creek, we just had to round-up some of these big fellows to make the trip with us.

Being a skilled craftsman at the age of 10, I made a cricket cage out of some used, back-door screen and fastened it together with some of my mother's black #40 sewing thread.

My fishing buddies and I made a quick trip to the dump and we loaded that cage with about 500 or so crickets in no time at all. When I got them home, I figured the best place to keep them was in our basement.

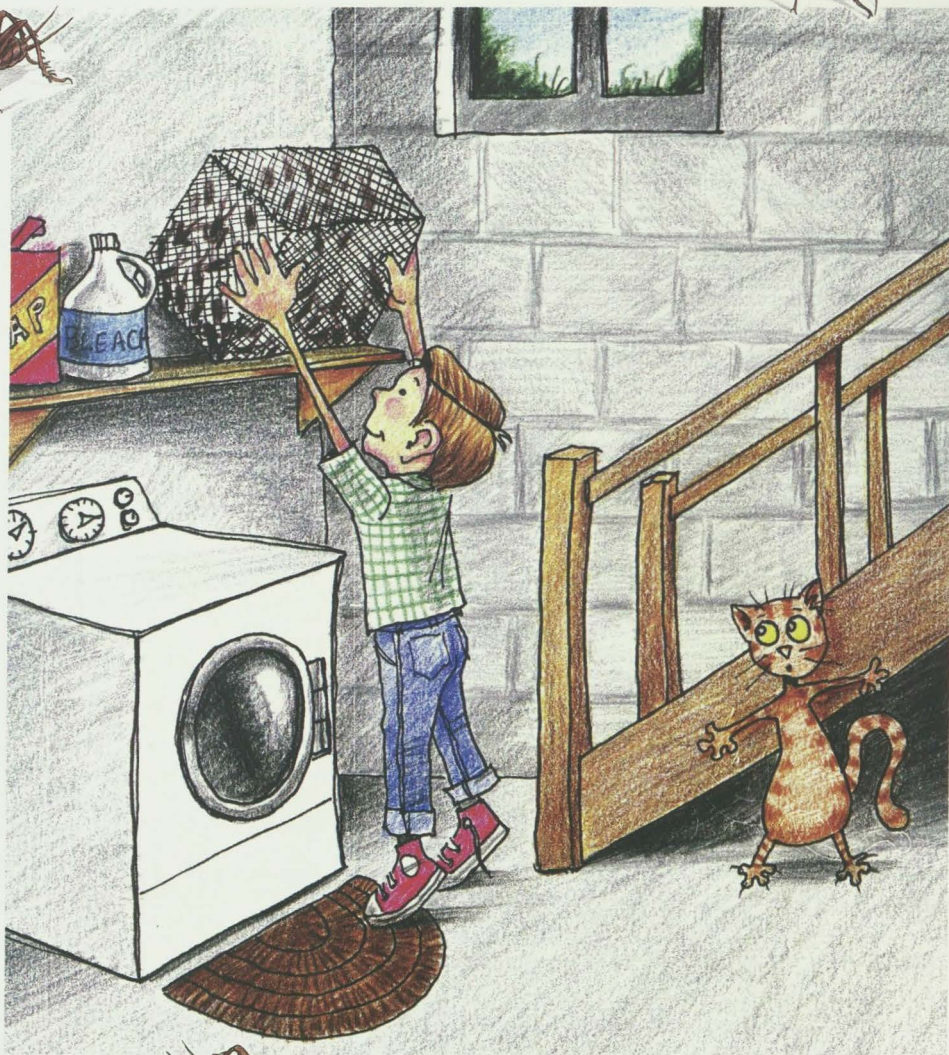
To be sure they were out of the way, I put the cage up on my mother's soap shelf behind the washing machine.

I didn't see Fritz (our neighbor's cat) sneak into the basement behind me.

This is what I imagine happened after I closed the basement door.

When all those crickets started singing, old Fritz just had to see what was going on.

Since there was not much room on the soap shelf for two boxes of Rinso soap powder, a box of starch, a



large cage full of crickets plus a nosy cat, something had to go. It was the cage full of 500 or so crickets that went.

Either Fritz or the fall busted that #40 black sewing thread and the crickets scattered like leaves on a windy day.

For the rest of the summer, every evening around suppertime our basement sounded like the Amazon River Basin.

Even today, every time I hear crickets I think about old Fritz. FW

2008 Florida Wildlife Art Contest Winning Print



Here is your opportunity to own a copy of this year's *Florida Wildlife* art contest winning artwork. "Pileated Woodpecker" by wildlife artist John Brennan is being reproduced as a limited-edition print, signed and numbered by the artist. Proceeds go the Wildlife Foundation of Florida, a not-for-profit, non-political organization dedicated to preserving Florida's fish and wildlife for future generations.

Each print is \$60 and may be ordered by calling toll-free 1-866-967-5600 or visit www.wildlifefoundation.net.

2009 Florida Wildlife Art Contest

Florida Wildlife Magazine is pleased to announce its 2009 art contest. Winning entries will be published in the July/August 2009 issue of *Florida Wildlife* and posted on the magazine's Web site. Signed and numbered limited-edition prints of the first place winning artwork will be available to *Florida Wildlife* readers. Entry forms and a complete list of rules and requirements may be found on the magazine's Web site: www.floridawildlifemagazine.com

- Contest is open to all artists at least 18 years old, regardless of residency.
- Participants may submit up to three entries.
- Entries must be unframed artwork submitted as a 35mm slide, 4" x 5" transparency or high-resolution digital scan on CD (300 dpi and no smaller than 8.5" x 11")
- Entries must be labeled with artist's name and name of artwork.
- Entries must include a completed and signed entry form available from www.floridawildlifemagazine.com or 1-866-967-5600.
- E-mail entries will not be accepted.
- Entries must be received by Friday, Feb. 27, 2009. Entries received after this date will be automatically disqualified.
- Entries will be returned beginning in May. Notification of contest results will be mailed to all participants.

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